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Health Surveillance in Debate: 10 years of contributions to knowledge in healthcare

Vigilância Sanitária em Debate: 10 anos de contribuição ao conhecimento em saúde

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ABSTRACT

This debate is the result of a brief study in the journal Health Surveillance in Debate: Society, Science & Technology (Visa em Debate) in its first decade. The objective is to present a panoramic view of the publications of this journal. The articles were classified into previously defined categories and the institutions to which the authors of the publications were linked were also identified. The category "object under health control" contains the largest number of publications, with 72.0% of the total, among which food, medicines and health services predominated. The categories "National Health Surveillance System", "Health Regulation and Surveillance", "Diseases, Agents, Epidemiology", and "Analytical Technologies" presented similar amounts of around 7.0%. Among the authors' affiliation institutions, universities and other higher education institutions are the ones with the highest number, in all regions. The Southeast region possesses the largest number of references, followed by the Northeast, South, Midwest, and finally the North region. In addition, links to universities in other countries, such as Canada, France, Portugal, and Colombia, were mentioned. A great diversity of themes was observed in all categories of classification and there are still gaps and/or few works in certain themes that are relevant to the area. This study shows that the journal has become a relevant vehicle for the dissemination of knowledge in health in general, and health surveillance, in particular. In this short time, this journal has already been indexed in relevant scientific databases and has a good Qualis/Capes classification in the interdisciplinary area of health, which contributes to a growing number of publications from renowned universities.

KEYWORDS: Health Surveillance; Health Regulation; Health Protection; National Health Surveillance System

RESUMO

Este debate, resultado de um breve estudo sobre o periódico Vigilância Sanitária em Debate: Sociedade, Ciência & Tecnologia (Visa em Debate) em sua primeira década, teve como objetivo apresentar uma visão panorâmica das publicações, que foram classificadas em categorias previamente definidas; também foram identificadas as instituições às quais os autores das publicações estavam vinculados. A categoria Objetos sob Controle Sanitário abriga o maior quantitativo de publicações, com 72,0% do total, entre as quais predominam alimentos, medicamentos, e serviços de saúde e de interesse da saúde. As categorias Sistema Nacional de Vigilância Sanitária; Regulação e Vigilância Sanitária; Doenças, Agentes, Epidemiologia; e Tecnologias Analíticas apresentam quantitativos semelhantes, em torno de 7,0%. Entre as instituições de vínculos dos autores, as universidades e outras instituições de ensino superior são aquelas com maior número de vínculos, em todas as regiões. A Região Sudeste concentra o maior número de referências, seguida do Nordeste, Sul, Centro-Oeste e, por último, a Região Norte. Também foram referidos vínculos a universidades de outros países, como Canadá, França, Portugal e Colômbia. Observou-se uma grande diversidade de temáticas em todas as categorias de classificação das publicações, também lacunas e/ou poucos trabalhos em certos temas relevantes para

a área. Este estudo denota que o periódico vem se constituindo um relevante veículo de disseminação do conhecimento em saúde em geral e vigilância sanitária em especial. Neste pouco tempo já foi indexada em importantes bases de dados científicos e conta com uma boa classificação Qualis/Capes na área interdisciplinar da saúde, o que contribui para um número crescente de publicações oriundas de renomadas universidades.

PALAVRAS-CHAVE: Vigilância Sanitária; Regulação Sanitária; Proteção da Saúde; Sistema Nacional de Vigilância Sanitária

INTRODUCTION

Due to the celebration of the 10th anniversary of the *Revista Vigilância Sanitária em Debate: Sociedade, Ciência & Tecnologia (Visa em Debate)*, the objective was to present an overview of this journal and some notes for reflection on the invisibility of health surveillance. In addition, some milestones that contributed to an inflection in its trajectory in the country and in the social perception of its importance as a teaching and research field of great relevance for collective health.

Until recently, the topic of health surveillance was little discussed in the scientific literature in Brazil and few publications addressed it, or at least approached the specificity of this component of public health, part of the public health system. Even the keyword "health surveillance" was only included in the Health Sciences Descriptors (DeCS) after the creation of the Brazilian National Health Surveillance Agency (Anvisa).

Some authors relate the "invisibility" of health surveillance with: a) the hegemonic model of care, centered on medical care, which would weaken the importance of preventive actions and, therefore, actions for the protection and promotion of health; b) the "health surveillance care model"[1], centered on inspection, even if insufficiently exercised, which would favor a perception of health surveillance as essentially bureaucratic-notary, aimed at meeting the formal demands of the regulated segments; c) the institutional insulation in which it was kept, with little or no organic articulation with the health system and public health policies[2,3].

Furthermore, there is a kind of suspicion that inspection areas tend to provoke, as being involved in some kind of corruption, which would tend to a reductive perception of the function of regulation and health surveillance for the protection of health, when controlling activities that may pose health risks. These hypotheses have not yet been the object of investigation or systematized critical reflection, but the fact is that the theme has only recently emerged in research and teaching and, gradually, regulation and health surveillance have been consolidating themselves as a relevant field of research for collective health.

For some time now, the multiple challenges it faces have become clearer, both those related to technical-scientific, functional, and political requirements for the exercise of regulatory functions, which imply intervening on products, technologies, and services, that is, on economic activities directly related to health and which concentrate significant portions of power. Added to this are the challenges related to the process, still unfinished, of structuring the National Health Surveillance System (SNVS), given its multiple facets of structural inequality between subnational federative entities and internal entities, themes well explored by De Seta and Dain4. Another important aspect of the late emergence of health surveillance in research is related to the scarce promotion of research on the subject, despite this being one of Anvisa's competencies, established in Law No. 9,782, of January 26, 1999.

A political movement in the area emerged in the second half of the 1980s, it grew in the 1990s when the old institutional model showed clear signs of insufficiency and exhaustion, which accompanied a calamitous situation, with the accumulation of many negative events related to the field of health surveillance. Especially those linked to medicines and health services were highlighted in the national and international media1.

The health surveillance in Brazil, in the second half of the 1990s, showed many health risks, provoked distrust regarding the consumption of products, expressed the fragility of health surveillance, and bothered even the productive sector, due to uncertainties and slow institutional responses to the crisis[3].

The situation favorable to institutional reformulations – when the proposal for reforming the State apparatus was being implemented, reconfiguring it from a provider and service provider State model to a regulatory and managerial State model – was decisive for the swift implementation of a profound change in institutionalized health surveillance, creating a regulatory agency, Anvisa, and SNVS, in 1999. This fact marks a so-called "game changer" in the conformation of health surveillance in the country, with a call for socio-sanitary and political responsibility for state regulation of production-consumption social relations, in order to promote the dignity of citizens, health security, and the protection of health and life.

Three facts contributed to the reflection and development of critical thinking about the component of the Unified Health System (SUS) later in terms of systemic formulation and organization: the reformulation of the organization of sanitary surveillance in the country, with the creation of Anvisa and SNVS, the creation of the Sanitary Surveillance Work Group/Brazilian Association of Collective Health (GTVISA/ABRASCO) and the Collaborating Centers in sanitary surveillance. In the year following the creation of Anvisa, the 6th ABRASCO Congress was held in Salvador, in 2000, when a motion was approved for the

creation of a Sanitary Surveillance Work Group in the entity. GTVISA/ABRASCO would bring, in a more clear way, the themes of the area to the field of collective health, notably with the holding of the Brazilian Symposium on Sanitary Surveillance (Simbravisa), started in 2002 and currently in preparation for its 9th edition.

GTVISA was formalized in 2001, on the eve of the 1st National Conference on Health Surveillance. Called by the Collegiate Board of Anvisa, with Resolution No. 130, of July 4, 2001, it was taken over by the managers of the SUS, who agreed to hold it in November, even though there was little time between the call and the realization, given that there would be greater difficulties in the following year, when majoritarian elections would take place5. Awaited for about a decade and a half since the 8th National Health Conference5, it was finally held in November 2001. Its objectives were to analyze the situation of health surveillance in the country and propose guidelines for its national policy and define strategies for the implementation of the SNVS as a member of the SUS, naming the theme "Effective the National Health Surveillance System: protect and promote health by building citizenship".

While Anvisa carried out its implementation, the first board sought teaching and research institutions with a call to establish cooperation with Anvisa, which sought to qualify its technical staff and encouraged the other components of the SNVS to do the same. Thus, the so-called Collaborating Centers were created, which were involved in various activities, in addition to courses aimed at training and qualifying personnel, as well as workshops, seminars, meetings, inclusion of topics in collective health congresses, aiming to deepen the debate on the area of health surveillance, its needs and its challenges that included the question of research.

At this time, very rich in reflections and hopeful of concrete changes, a proposal arose to create a journal in the area, as it was difficult to publish health surveillance topics in journals in the field of collective health. Thus, the *Revista Brasileira de Vigilância Sanitária* emerged, linked to the Collaborating Center established at the Faculty of Public Health of the University of São Paulo (USP). The jorunal's unsustainability was soon presented with the changes that occurred in the direction of Anvisa and the end of the strategy of the Collaborating Centers; a well-evaluated strategy, according to the National Seminar on Teaching and Research in Health Surveillance, held in 2008, which took stock of teaching and research[6].

In view of the unfeasibility of maintaining the *Revista de Vigilância Sanitária at the Faculdade de Saúde Pública/USP*, it fell to the National Institute for Quality Control in Health (INCQS), of the Oswaldo Cruz Foundation (Fiocruz), to assume the mission of creating and maintaining the *Vigilância Sanitária em Debate: Sociedade, Ciência & Tecnologia (Visa em Debate)* journal, with the support of Anvisa. In the editorial at the launch of the first issue, in February 2013, the editors stated that "the initiative seeks to strengthen the field of public health knowledge, with a multi- and interdisciplinary approach, characteristic of health surveillance". With a commitment to continuous improvement, the journal *Visa em Debate*, a quarterly publication that is of open and exclusively online access publication, reaches its 10th year bringing to the debate several issues related to the area of health surveillance and the like, contributing to the dissemination of research results and experiences lived by workers, teachers, and researchers.

With the objective of presenting an overview of the set of publications of the journal *Visa em Debate*, over these 10 years, the following categories were defined to organize and classify the works: object under health control; National Health Surveillance System; Health regulation and surveillance; Diseases, agents, epidemiology; Analytical technologies; Other related topics. Another category defined to present a broad view of the journal and its publications was the institutional affiliation of the author(s) and the region of Brazil or the country where the institution is located.

The category "Objects under health control" includes: products; health and health interest services; public water supply and others, nanotechnologies, pesticides; blood, tissues, cells, and organs; Worker's health. In order to avoid a very intense dispersion in this category, it was defined that it would be necessary to have at least two references, otherwise the publication would be classified in "Other related topics".

The "National Health Surveillance System" category covers: political-administrative organization, infrastructure, financing, management, policies and practices, and includes the public health laboratory (INCQS, *Instituto Adolfo Institute*, Central Laboratories of Public Health - LACEN) and others . The category "Health Regulation and Surveillance" deals with broader themes, referring to its macro function, without focusing on any of the objects under health control. The category "Diseases, agents, epidemiology" groups works that report on diseases, in general transmissible ones and their etiological agents, and studies of an epidemiological nature. The category "Analytical technologies" refers to the production, experimentation, validation, and revalidation of laboratory analytical techniques. A set of topics that did not fit into the aforementioned categories was grouped under "Other related topics" to health surveillance.

The other category defined to present a broad view of the journal and its publications was the institutional affiliation of the author(s) and the respective regions of Brazil or the country where the institution is located. It is relevant to point out that publications can have more than one author, which happens very frequently. Furthermore, authors may have more than one institutional link.

"Health Institutions and Services" include: Ministry of Health, state and municipal health departments, public and private hospitals, clinics. "Other institutions" refers to ministries, such as economics and agriculture, Pan American Health Organization (PAHO).

The "Teaching and Research Institutions and Research Institutions" refer to institutions in the field of health, such as Fiocruz or others, such as the Brazilian Agricultural Research Corporation (Embrapa), the Center for Nuclear Development, the Institute for Energy and Nuclear Research, etc.

"Public Health Laboratories and others" refer to laboratories in the health area, such as INCQS, *Instituto Adolfo Lutz*, *Instituto Butantã*, LACEN and others, such as the National Institute of Metrology, Standardization and Industrial Quality (Inmetro).

The "Universities and other Institutions of Higher Education" include, in addition to the universities themselves, colleges, federal institutes of technological education and of science and technology. The SNVS covers Anvisa and the subnational components.

The examination of the publications was carried out in all volumes and issues of the journal, with the reading of the abstracts to identify and classify the object and theme of study and the identification of the institutions to which the authors were linked. Data were organized in an Excel spreadsheet, from which simple frequencies and, when relevant, relative frequencies were extracted, using graphs and matrices to present the results of this study. We tried to identify, in the different categories, the respective theme investigated, by reading the summaries of all the works, that is, debates, articles, experience reports and brief communications, as well as letters. In this publication, only the topics related to the category "Objects under health control" are presented.

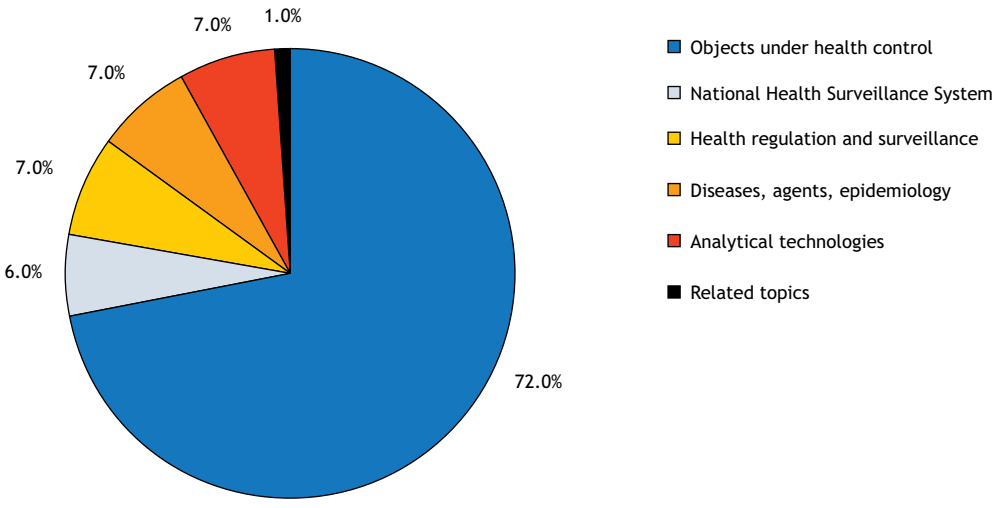
Publications of the periodical Vigilância Sanitária em Debate according to classification categories

According to Figure 1, the category "Object under health control" contains the largest number of publications, ie 72.0% of the total. This result would be expected, given the multiplicity of products under health surveillance, the different services, from health services to those of interest to health, and even innovations in the field of nanotechnologies, among others. It is observed that the other categories, "SNVS", "Health regulation and surveillance", "Diseases, agents, epidemiology" and "Analytical technologies" present a similar number of publications.

It should be noted that the SNVS, even after 23 years of its creation, still does not arouse great interest for the investigation of its components, infrastructure, organization, financing, management, practices, and policies. Compared to the category "Objects under health control", there is a small number of publications on these topics (6.0%) that represent issues and challenges for the effective consolidation of the SNVS, a subsystem of the SUS. It was observed that the most frequent topics addressed are related to dimensions of management, education, and qualification in surveillance, with emphasis on the municipal sphere. It is noted that there are few publications on the theme of work in health surveillance, which is so important and in need of deepening. There are also issues related to the function and management of the public health laboratory in its health surveillance component.

There was a small percentage of publications (7.0%) in the category "Health Regulation and Surveillance", and some of them reflect themes on the frontiers of science, cellular therapies, research, and use of stem cells, transgenic foods, and nanotechnologies. Some articles of a theoretical nature and three publications on health surveillance research were found.

In the classification category "Diseases, agents, epidemiology", 7.0% of publications were found that mainly address transmissible diseases and their agents: meningitis, Chagas disease, rabies, leishmaniasis, intestinal parasites, and bacterial food outbreaks. Of note are the publications on COVID-19, which were



Source: Elaborated by the authors, 2022.

Figure 1. Publications of the periodical Vigilância Sanitária em Debate according to classification categories.

the subject of a call for publications in March 2020, as soon as the pandemic by SARS-CoV-2 was recognized, and which resulted in wide-ranging publications on the subject and even articles in other issues of the journal.

"Analytical technologies" grouped 7.0% of publications that dealt mainly with experimentation, validation, and revalidation of methods, proficiency tests, methodological innovations in laboratory techniques related to health surveillance objects.

Objects under health control

Chart 1 presents the objects under health control addressed in the publications, the number, and percentage. Figure 2 illustrates these findings. It is observed that food accounted for 30.6% of publications. This product class includes different types of food: vegetables, *in natura* and processed, those of animal origin (meat, fish, milk, and derivatives), food intended for children, food supplements, dietetic sweeteners, and also food services, with emphasis, in quantitative terms, on school food services.

Health services and those of interest to health occupy second place among objects under sanitary control, that is, 21.0% of the total number of publications. This class includes: hospitals, hemotherapy services, hemodialysis services, long-term care facilities for the elderly, beauty salons, and topics related to patient safety, reports of adverse events, performance of health surveillance in health services, among others.

Medicines account for 18.8% of publications and rank third among objects under sanitary control. They cover herbal medicines, compounded products, and a wide variety of topics related to medicines, such as: microbiological and physical-chemical evaluation, antimicrobial resistance, good manufacturing practices, pharmacovigilance, adverse event reports, and technical complaints.

Chart 1. Objects under sanitary control.

Objects under sanitary control	N	%
Foods	125	30.6
Health and health services	86	21.0
Drugs	77	18.8
Health products	28	6.8
Public water supply and others	16	3.9
Nanotechnology	11	2.7
Pesticides	6	1.5
Blood, tissues, cells, and organs	4	1.0
Sanitizing	4	1.0
Worker's health	3	0.7
Cosmetics	2	0.5
Others	47	11.5
Total	**409**	**100.0**

Source: Elaborated by the authors, 2022.

The fourth most frequent class of objects under sanitary control (6.8%) corresponded to health products. It covers diagnostic kits and a wide range of medical products; among other topics, they deal with functional evaluation, reprocessing of these products, technical complaints.

Public supply water and others account for 3.9% of publications on objects under sanitary control. The topics addressed are mainly physical-chemical quality and fluoridation.

The journal *Visa em Debate* dedicated one of its thematic issues (v.1 n.4) to nanotechnologies, which accounted for 2.7% of publications in the category "Objects under sanitary control". Among others, topics such as regulation, quality control, environmental risk, and nanotechnology toxicology were discussed.

Other thematic issues that reflect the scope of the area were: health surveillance and promotion of adequate and healthy food, impasses, challenges, and perspective (v.2 n.4); Cultural diversity and health risks (v.4 n.4); Advanced cellular technologies: biotechnological and regulatory challenges (v.6 n.1); Sentinel network (v.7 n.4), and Monitoring and evaluation in health surveillance (v.8 n.4).

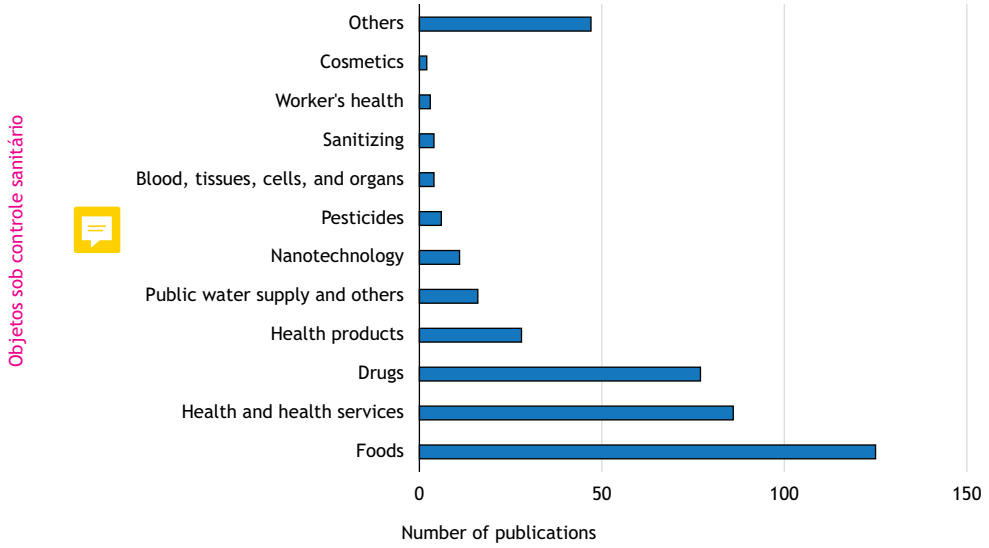
Attention is drawn to the few publications on "Blood, tissues, cells, and organs". Also noteworthy is the low production of pesticides, sanitizing products, and cosmetics, products that are widely used. The great health relevance of pesticides should be highlighted, due to the complexity of intersectoral and interinstitutional health regulation and the harm to human health and the environment. Finally, a total of 47 publications addressed a wide range of topics but presented only a single publication in each of them; therefore, they were classified under "Other related topics" to objects under health control.

Institutions with which the authors of the publications are linked

According to Chart 2, universities and other institutions of higher education are those with the highest number of links to authors of publications in *Revista Visa em Debate*, in all regions. The Southeast concentrates the largest number of references, followed by the Northeast, the South, the Midwest, and, lastly, the North Region. Furthermore, references to links to universities in other countries were also found, such as Canada, France, Portugal, Colombia.

Then, the category of laboratories was placed as institutions with which the authors of the publications are linked. The most frequent were the INCQS and the *Instituto Adolfo Lutz*, which are located in the Southeast Region. A small number of publications had LACEN as the author's link.

The third group of institutions to which the authors are linked were teaching and research institutions, and research institutions. This is mainly Fiocruz, which has a wide and diverse set of units located in the Southeast Region and some in other regions of Brazil. Some links to research institutions were also mentioned, such as Embrapa, Minas Gerais Epidemiology and



Source: Elaborated by the authors, 2022.

Figure 2. Publications of the periodical Vigilância Sanitária em Debate according to classification categories.

Chart 2. Institutions with which the authors of the publications are linked.

Link	North	Northeast	Midwest	Southeast	South	Institutions national	Others countries
Institutions and health services	6	17	8	52	14	-	-
Other institutions (national and internacional scope)	-	-	-	-	-	13	-
Teaching and research institutions and research institutions	4	4	2	104	2	-	2
Public health laboratories and others	3	2	-	141	-	-	-
Universities and other Higher Educational Institutions	26	93	39	193	88	-	20
National Health Surveillance System (Anvisa, state surveillance, municipal surveillance)	2	6	4	7	1	58*	-

Source: Elaborated by the authors, 2022.
*Anvisa.

Health Assessment Research Group, Nuclear and Energy Research Institute, *Instituto Vital Brazil*, Brazilian Center for Research in Energy and Materials, and Research Support Foundation.

The fourth group of institutions most frequently linked by the authors were institutions, such as: state and municipal health departments and health services, such as hospitals, located mainly in the Southeast Region, followed by the Northeast, South and a small number in the Midwest and North regions. References were also found to national institutions, such as the Ministries of Planning and Agriculture and PAHO.

Finally, the SNVS, as a subsystem of the SUS that encompasses three management instances: Anvisa, state services, and municipal health surveillance services. Publications by authors linked to Anvisa stand out, some of which explore data from institutional information systems. The small number of publications by authors linked to state and municipal health surveillance stands out.

This first look at *Visa em Debate* shows that the journal has become an important vehicle for disseminating knowledge in health surveillance and related thematic areas. Even with its short time of existence, it has progressively been indexed in relevant scientific databases and has a good Qualis classification by the Coordination for the Improvement of Higher Education Personnel (Capes) in the interdisciplinary area of health. This fact contributes to an increasing number of articles coming from renowned universities.

Despite the fact that health surveillance has emerged in research in recent years, some studies on its publications identify growth and thematic diversification. Furthermore, there is a concern with research and the need to develop the area as a field for the production of scientific knowledge[7]. In a study that analyzed the scientific production of the period 1997-2003, recorded by researchers registered in the Lattes Platform of the National Council for Scientific and Technological Development (CNPq),

913 records were found in the bibliographic production category and 281 in completed orientations, with production growth estimated at 540% in the period. 735 research groups were identified, created mainly in the period 2000 to 2003, located mostly in the Southeast[8].

CONCLUSIONS

Examining the themes addressed in the Journal allowed the identification of many relevant themes in the production of knowledge in health, still little or not explored at all, but also identified gaps, especially in the complex area of health surveillance. Risk, a central category for the understanding and practices of health surveillance, rarely appears, something that marks the absence of a deepening in the more theoretical-conceptual sense, towards a necessary epistemology of health surveillance, which would need to include a conceptual matrix, which, in addition to risk, incorporated other fundamental concepts, expressing the multi- and interdisciplinary nature of the field of health surveillance.

Furthermore, it is noted that there is little depth of issues specific to the SNVS, such as its design and the necessary redefinition of concepts of health systems, such as organization, territorialization, regionalization, comprehensiveness, and equity in the light of health surveillance. It also draws attention to the lack of approach to intervention technologies specific to health surveillance, such as health inspection and surveillance, registration, health licensing, good manufacturing practices, etc. The themes of communication and information with the recipients of health surveillance actions, that is, the population, have few publications and relations with regulated segments, conflicts, and disputes of interest are absent themes. This work, due to its panoramic character, did not intend to develop an in-depth analysis of the publications, something that deserves to be carried out in future studies.

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Author's Contributions

Costa EA, Souza GS, Araújo PS – Conception, planning (study design), acquisition, analysis, data interpretation, and writing of the work. All authors approved the final version of the work.

Conflict of Interests

The authors inform that there is no potential conflict of interest with peers and institutions, politicians, or financial in this study.