REVIEW
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Health surveillance actions in health services: integrative review 2012-2023

Ações de vigilância sanitária em serviços de saúde: revisão integrativa 2012-2023

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ABSTRACT

Introduction: Health surveillance actions are essential to guarantee the safety and quality of health services offered to the population. **Objective:** to understand evidence available in the literature on health surveillance actions in Brazilian health services. **Method:** Integrative review of indexed primary studies, in Portuguese, English or Spanish, from 2012 to 2023, in the CINAHL, Embase, LILACS/SciELO, PubMed and Web of Science databases. Articles were independently selected by peers and were exported to the Rayyan web. A script was used to extract data. Assessment of the methodological quality of the studies was carried out using the Guideline Critical Review Form for Quantitative and Qualitative Studies and the Mixed Methods Appraisal Tool. The strength of evidence was assessed using the classification proposed by Melnyk and Fineout-Overholt (2019). **Results:** The integrative review presented fourteen studies on health surveillance in health services. The literature found focused on the functioning of health services and working conditions within the scope of health surveillance. Pharmacy services, hemotherapy, mammography, dialysis, laboratories, maternal and childcare services, basic health units, hospitals, intensive care units, surgical centers, and material and sterilization centers were found. Non-conformities were evident in health services, use of the Risk Assessment Model, Logical Model, and Monitoring Programs in health surveillance practices. **Conclusions:** This study identified non-conformities in health services that represent failures to meet the necessary requirements for good practices. It highlighted the importance of monitoring programs to reduce health risks and highlighted the need for management strengthening and better working conditions in health surveillance.

KEYWORDS: Health Services; Health Surveillance; Health Services Surveillance

RESUMO

Introdução: Ações de vigilância sanitária são fundamentais para garantia da segurança e qualidade de serviços de saúde ofertados à população. **Objetivo:** Conhecer evidências disponíveis na literatura sobre ações de vigilância sanitária em serviços de saúde brasileiros. **Método:** Revisão integrativa de estudos primários indexados, em português, inglês ou espanhol, de 2012 a 2023, nas bases de dados: CINAHL, Embase, LILACS/SciELO, PubMed e *Web of Science*. Artigos foram exportados para *web* Rayyan, selecionados por pares de modo independente. Utilizou-se roteiro para extrair dados. Avaliação da qualidade metodológica dos estudos ocorreu pelos *Guideline Critical Review Form for Quantitative Studies* e *Qualitative Studies*, e *Mixed Methods Appraisal Tool*. Avaliação da força de evidências se deu pela classificação proposta por Melnyk e Fineout-Overholt (2019). **Resultados:** A revisão integrativa apresentou 14 estudos sobre vigilância sanitária nos serviços de saúde. A literatura encontrada concentrou-se no funcionamento dos serviços de saúde e condições de trabalho no âmbito da vigilância sanitária. Foram encontrados serviços de farmácia, hemoterapia, mamografia, diálise, laboratórios, serviços de assistência materna e infantil, unidades

básicas de saúde, hospitais, unidade de tratamento intensivo, centro cirúrgico e central de material e esterilização. Evidenciou-se: não conformidades nos serviços de saúde, uso de modelo de avaliação de risco, modelo lógico e programas de monitoramento nas práticas de vigilância sanitária. **Conclusões:** O estudo identificou não conformidades nos serviços de saúde que representam o não atendimento aos requisitos necessários para as boas práticas, evidenciou a importância dos programas de monitoramento para redução dos riscos sanitários e apontou a necessidade do fortalecimento gerencial e de melhores condições de trabalho na vigilância sanitária.

PALAVRAS-CHAVE: Serviços de Saúde; Vigilância Sanitária; Vigilância de Serviços de Saúde

INTRODUCTION

The right to health is an achievement of Brazilian society, guaranteed by the Federal Constitution through social and economic policies aimed at well-being, social justice, and reducing the risk of illness and other problems, which made health actions and services of public relevance[1]. To make this right a reality, the Unified Health System (SUS) was organized by Law No. 8.080, of 19 September 1990[2], which regulated health actions and services for the promotion, protection, and recovery of the population's health. This law gives SUS sanitary control over services that are directly or indirectly related to health. This control is attributed to Health Surveillance (Visa), through actions that can "eliminate, reduce, or prevent health risks" and be capable of intervening in health-related problems, whether arising from the environment, the production and consumption of goods, or the provision of services of interest to health[2]. This area of public health is responsible for a wide range of tasks.

To meet this objective of the SUS, in 1999 the National Health Surveillance System (SNVS) was defined, and the Brazilian National Health Surveillance Agency (ANVISA) was created, with the aim of promoting the protection of the population's health through regulation, standardization, control, and inspection activities in the area of health surveillance.[3,4]

Among the vast field of action of health surveillance are health services, establishments designed to provide health care to the population, in the prevention of diseases, treatment, recovery, and rehabilitation of patients. Brazil has more than 375,000 registered services of various types and with complex characteristics, combining technological structures with human knowledge and practices in health.[5,6,7]

It is in this context that health surveillance actions stand out, as they are crucial to ensuring that the health services provided are of high quality and safe for the population, the employees who work in them and the environment, that they are free of risks, or that the risks are less than the benefits presented[8,9]. Therefore, this study aims to find out about the evidence available in the literature on health surveillance actions carried out in Brazilian health services.

METHOD

This is an integrative literature review, a research method developed in six stages: identification of the topic and elaboration of the research question, database search, data extraction, evaluation of the studies included in the review and interpretation of the results, and presentation of the review[10]. Part of the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses, PRISMA, were used to report the review. [11]

To define the research question, the PICo strategy was considered, with the population (P) being health services, and the area of interest (I) being health surveillance actions, in the national context (Co), which resulted in the following guiding question: what evidence is available in the scientific literature on health surveillance actions in Brazilian health services?

The inclusion criteria adopted for this review were primary, indexed studies, in English, Spanish, and Portuguese, published between January 2012 and December 2023, which addressed health surveillance actions in health services. The period chosen was due to the interest in accessing studies that covered health surveillance actions in health services during the validity of updated standards, such as the one that provides for good operating practices for health services[12], good practices for processing health products[13], and the one that instituted patient safety in health services[14].

In addition, the period chosen considered the existence of a systematic review of the literature on health surveillance in health services[15] published in 2014.

Books, reports of experiences, reflections, theoretical essays, reviews, letters, news, abstracts, conference proceedings, editorials, dissertations, and theses were excluded.

The search for studies took place on February 7, 2023, in the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Excerpta Medica Database (Embase), Latin American and Caribbean Health Sciences Literature (LILACS/SciELO), National Library of Medicine (PubMed) and Web of Science. To do this, the following descriptors were used: Health Sciences (DeCS), Medical Subject Headings (MeSH), Subject Headings, and Emtree, as well as the keywords indicated in the databases. The search was carried out again on December 16, 2023, without retrieving any new studies.

A search strategy was devised, adapted to each database, according to the PubMed search: ("Health services" OR

"Health facilities" OR "Health servisse" OR "Health facility" OR "Healthcare servisse" OR "Health care servisse" OR "Health system agency" OR "Healthcare agency" OR "Health care facility" OR "Healthcare facility") AND ("Facility regulation and control"[MeSH Terms] OR "Facility regulation and control" OR "Facility regulation" OR "Facility regulations" OR "Facility control" OR "Facility controls" OR "Sanitary survey" OR "Sanitary surveys" OR "Health surveillance services" OR "Brazilian health surveillance agency" OR "ANVISA" OR "Sanitary inspection" OR "Sanitary supervision" OR "Sanitary surveillance" OR "Sanitary vigilance")

The retrieved references were exported to the desktop application Mendeley Reference Manager, version 2.89.0[16], where duplicate studies were organized and eliminated. After this stage, the studies were exported to the web application Rayyan Systems Inc.[17], the remaining duplicate studies were excluded and the titles and abstracts were read independently by two reviewers, with the blind method activated. A stage was created for blind reading of the selected studies. The reviewers selected the studies independently, following the proposed eligibility criteria. A third reviewer was brought in to resolve any conflicts, which resulted in a final sample of 14 studies.

The relevant information from the final sample was extracted independently by two reviewers, with a third one to resolve conflicts. The script included the characterization of the studies: title, authors, degree of the authors, journal, date of submission and publication, host institution of the study, and data on the development of the studies: justification, objectives, method, main results, conclusions, and limitations of the studies.

The critical evaluation of the methodological quality of the quantitative and qualitative studies was carried out using the instruments: Guideline Critical Review Form for Quantitative Studies[18] and Guideline for Critical Review Form: Qualitative Studies[19], developed by the McMaster University Occupational Therapy Evidence-Based Practice Research Group. The mixed methods study was evaluated using the Mixed Methods Appraisal Tool. [20]

In terms of strength of evidence, the hierarchy of evidence classification proposed by Melnyk and Fineout-Overholt[21] was used, in which a different hierarchy of evidence is determined for each type of clinical question, with level I being the classification with the highest strength of evidence and level VII, a study with low strength of evidence.

According to the authors, for studies with intervention issues, the hierarchy levels range from I to VII, where level I includes studies with evidence from systematic reviews or meta-analyses of relevant randomized controlled clinical trials or clinical guidelines based on systematic reviews of randomized controlled clinical trials, and level VII includes studies with evidence from the opinion of authorities and/or committee reports. For studies with questions of significance or prognosis, the hierarchy of evidence defined by the authors runs from levels I to V, where level I includes evidence from meta-synthesis of qualitative studies, syntheses of cohort or case-control studies, and level V includes evidence from expert opinion.[21]

RESULTS

The database search retrieved 1,205 studies, which were exported to the Rayyan web application, and 72 duplicate studies were removed. The titles and abstracts of 1,133 articles were read and then 46 studies were read in full by two reviewers independently, with the participation of a third reviewer to resolve conflicts. Fourteen studies made up the final review sample. The flowchart detailing the article selection, inclusion and exclusion process, based on the PRISMA guide[11], is shown in Figure.

Of the 14 studies sample, nine had a quantitative methodological approach, four had a qualitative approach, and one had a qualitative-quantitative approach.

Regarding the source of publication, half (50.00%) of the 14 studies were indexed in the journal *Vigilância Sanitária em Debate: Sociedade, Saúde & Tecnologia* and two studies in the journal *Ciência & Saúde Coletiva*. Seven studies (50.00%) were published between 2020 and 2022.

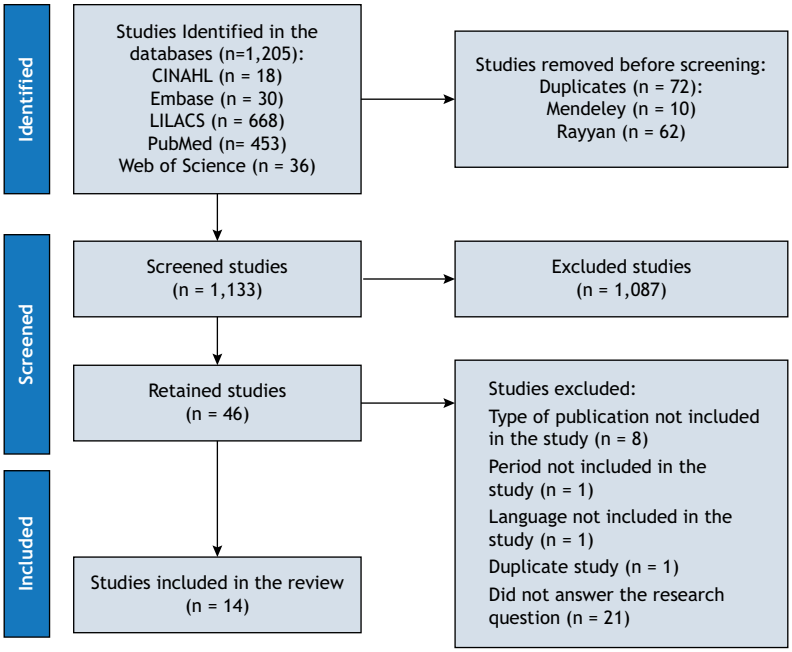
About limitations, eight studies reported no limitations (57.16%), two claimed a small sample size (14.28%), two reported collecting data from consolidated reports (14.28%), and two reported convenience samples (14.28%).

According to the levels of evidence proposed by Melnyk and Fineout-Overholt[21], 11 studies had a prognostic research question and were classified as level IV in terms of strength of evidence, two had a significance research question and were classified as level II in terms of evidence, and one was an intervention, classified as level VI in terms of evidence.

For the critical methodological evaluation of the nine quantitative studies, the form proposed by Law et al.[18] was used. This form has 15 questions that make it possible to evaluate the studies, and the greater the number of questions answered yes, the better the methodological quality of the study. Of the nine studies, one (11.11%) had 13 yes answers, two (22.22%) had 12 yes answers, and six (66.66%) answered yes to 10 questions.

The methodological assessment of the four qualitative studies was carried out according to the Guideline for Critical Review Form: Qualitative Studies[19]. This form has 21 questions for evaluating the studies, in which the greater the number of yes answers, the better the methodological quality of the study evaluated. One study (25.00%) had 18 yes answers, two studies (50.00%) had 15 yes answers, and one study (25.00%) answered yes to 13 questions on the form.

The mixed methods study was evaluated using the Mixed Methods Appraisal Tool[20]. This form has 15 questions for the critical review of a mixed methods study, five of which apply to the qualitative method, five to the quantitative method and five to the



Source: Prepared by the authors, 2023.

Figure. Flowchart used to select the articles, adapted from the PRISMA recommendation.

mixed method. After evaluating the study, 13 positive responses were obtained.

The studies included in this review were summarized in Chart 1.

DISCUSSION

After summarizing the studies retrieved, the main results that met the objective of this review were selected, i.e. results that dealt with health surveillance actions in health services. Other results found in the studies, which also discussed important topics such as the history of health surveillance, health standards, the system of decentralization of health surveillance actions, and the actions of class councils in health services, were not the subject of this study.

As a result of the findings, the studies were grouped into two categories: "Health surveillance and operating conditions of health services" and "Processes and working conditions in health surveillance of health services".

Health surveillance and the operating conditions of health services

The sample of this review revealed 10 studies that investigated the sanitary conditions of health services, based on the parameters established in regulations. Of these, all the health services studied were high risk[36], with a high potential risk of harm to human health or the environment as a result of their activities. These conditions denoted risks related to physical infrastructure, equipment and technologies, procedures and care practices. Chart 2 shows the most frequent non-conformities by type of health service.

For each health service in the studies, there is specific legislation that regulates its operation and defines the requirements for good practice. Therefore, the health risks were assessed according to each type of service, which did not allow for generalizations. However, Resolution No. 50, of February 21, 2002[37], is a technical regulation for physical projects that applies to all types of health establishment and prior assessment of these architectural projects is important if health services are to be safe and effective.[22]

The studies by Navarro et al.[25] and Silva Junior et al.[31] used the Potential Risk Assessment Model and showed that the instrument makes it possible to standardize health inspection processes and decision-making in health services. The use of standardized risk assessment tools makes it possible to classify health services according to their potential risk-benefit ratio[38] and is interesting for prioritizing situations with the greatest health risk.

As for the monitoring programs implemented by the Health Surveillance (Visa), studies have shown that they are effective in improving results over the years[30,32,35] and it is recommended that these programs continue.

Processes and working conditions in health surveillance of health services

The sample consisted of four studies, three of them on working conditions in health surveillance[24,33,34] and one presented a logical model for evaluating health services[27], as shown in Chart 3.

Health surveillance is a complex area of public health that works to control risks, which requires, among other things, permanent education policies and infrastructure with sufficient human resources to

Chart 1. Summary of the 14 studies included in the integrative review.

Authors	Objective	Main results	Conclusions
Soldate, Oliveira[22] (2022)	To demonstrate the importance of health surveillance in evaluating the physical structure of services subject to health control by analyzing architectural projects evaluated in 2019 and 2020 in MG.	The main problems found in the evaluation of the architectural projects were: lack of accessibility, intersecting flows, spatial disorganization of environments, lack of ventilation or inadequate ventilation, little or no natural lighting, insufficient area or even oversizing of environments, inadequate finishing materials, and inadequate or inappropriate location.	The prior evaluation of architectural projects for healthcare facilities is another ally for the safety, efficiency, and effectiveness of healthcare facilities; this stage is fundamental, as irregularities can be detected and corrected in time, resulting in a functional, economical and efficient physical structure.
Jubé, Barreto[23] (2022)	Identify health surveillance actions related to health services in community pharmacies.	The study observed: that sharing the dispensing site with other health activities reflected a health risk; that the declaration of pharmaceutical services proved to be a good tool for recording activities; and, about monitoring, that notifications of adverse events and technical complaints did not appear to be routine.	The delimitation of health activities in pharmacies is a challenge for health surveillance, both because of the adjustment of health regulations and because product and service technologies are updated more quickly than the analysis of the risks involved in their exposure to the population.
Costa et al.[24] (2022)	Analyze the main challenges facing health surveillance workers in health services.	The study identified problems and challenges: incipient planning of actions, turnover of managers, lack of human and technological resources, lack of coordination and integration of SNVS levels. As for working conditions: precarious employment relationships, low salaries, incomplete teams, need for public tenders, and appreciation of work.	The work of health surveillance in health services requires overcoming multiple challenges, including the integration of actions at the different management levels and issues of training, incorporation of technologies and readjustment of work processes.
Navarro et al.[25] (2021)	To present the operationalization of the Potential Risk Assessment Model in health services in the state of SC, to support reflections on the applicability of the method in the sanitary control carried out by health surveillance.	ICUs had the highest percentages of acceptable risk and the lowest percentages of non-acceptable risk, while CMEs had the lowest percentages of acceptable risk and the highest percentages of non-acceptable risk. The percentages of potential acceptable risk are higher in the CCs of large hospitals, in the ICUs of medium-sized hospitals and absent in the CMEs and CCs of small hospitals.	The Potential Risk Assessment Model favors risk management in health surveillance and the targeting of health control actions. It has limitations, as it requires an information system and understanding of the results, given that risk and benefit are challenging concepts and must be analyzed in a defined context.
Tsai, Pontes, Capucho[26] (2020)	Analyze the national self-assessment process on patient safety carried out by ANVISA, from the perspective of surveillance, from 2016 to 2019.	The study observed an increase in the participation of hospitals in self-assessment; the highest relative frequencies of non-compliance for the period were: non-adherence to the protocol for preventing falls, pressure injuries and surgical safety; non-adherence to the assessment of the risk of falls, pressure injuries and verification of surgical safety.	SNVS needs to implement strategies to make managers aware of the importance of self-assessing patient safety practices and implementing improvements in services, as well as consistent public policies.
Bourguig-non, Hartz, Moreira[27] (2020)	Draw up a logic model based on ANVISA's maternal and neonatal care services manual, which compiles recommendations for these services.	The study synthesized and organized recommendations for maternal and neonatal safety through the development of a logic model, a tool for monitoring the service itself and for use by health surveillance professionals. It pointed out the need for integration between health surveillance and obstetric and neonatal care services to achieve the tool's effects.	The proposed logic model can be a useful tool both for the organization and monitoring of services and for professionals working in health surveillance, as well as enhancing the recognition of health surveillance for the promotion of maternal and child health.
Andrade et al.[28] (2020)	Analyze the evolution of the National Patient Safety Program, from 2015 to 2019, based on public data.	The study found a 416% increase in the number of Patient Safety Centers, but this represents less than 50% of hospital establishments in the period evaluated. Notifications increased by more than 900%, but it is necessary to qualify the information before sending it to ANVISA. It showed a slight reduction in serious injuries and deaths, when comparing the proportion of cases over the same period.	Coordinated health surveillance and health care actions must be intensified to make patient safety a public health priority in Brazil; the National Patient Safety Program has led to positive developments over the years and the mobilization of Brazilian health institutions and professionals has the potential to save lives.
Costa et al.[29] (2018)	To evaluate the non-conformities in clinical analysis laboratories in public hospitals in the city of Rio de Janeiro from November 2016 to November 2017.	The study analyzed inspection reports and found that all clinical analysis laboratories had at least one non-conformity; the most frequent non-conformities were: lack of standard operating procedures, failures in the cleaning, disinfection and sterilization process in equipment and lack of a technical manager during the entire period of operation.	Health surveillance actions seek to provide the population with health services that comply with established quality standards, even if the identification of non-conformities subsidizes the adoption of corrective actions by the health establishment.

Continue

Continuation

Almodovar et al.[30] (2018)	Evaluate the Program for Monitoring the Quality of Water Treated for Dialysis developed between 2010 and 2016, as a tool for taking corrective action.	The study found that the incidence of unsatisfactory results in the first sample was higher than in the last sample; during the study period, the level of satisfactory results ranged from 85.8% to 98.0%, indicating an increase in the adequacy of dialysis services in producing water of the quality needed to preserve patients' health.	Visa's systematic monitoring of dialysis services in the state of SP allows for continuous improvement of treated water treatment and distribution systems. It is important to maintain the Program for Monitoring as a tool to support action-taking between health surveillance and health services.
Silva-Júnior, Rattner, Martins[31] (2016)	To describe the health situation of the Brazilian hemotherapy services evaluated in 2013 using the Potential Risk Assessment Model.	The study showed that 81% of hemotherapy services were in a satisfactory situation. The non-conformities were distributed as follows: 39.0% related to quality assurance procedures, 12.0% related to documentation and record systems, 12.0% to materials and equipment, 14.0% to human resources, 12.0% to technical procedures and 11.0% related to physical structure.	The use of the Potential Risk Assessment Model facilitated the evaluation of Brazilian hemotherapy services and revealed objective opportunities for improving these services, which should be prioritized by health authorities, especially in public services rather than private ones.
Villar et al.[32] (2015)	To evaluate the evolution of the image quality of 52 mammography machines located in the state of Rio de Janeiro, from 2006 to 2011.	The study evaluated 16 image quality parameters in 21 hospitals and 31 outpatient clinics; of the 16 parameters, seven showed more than 70% compliance. Important parameters showed less than 50% compliance: visibility of high-contrast details (47.1%) and monthly image quality tests, which showed the worst result, with very low values of 26.9% in the first inspection and 28.8% in the last inspection.	In most parameters, there was no significant improvement in non-compliance between the first and last inspections, which revealed critical situations in terms of Visa's actions, and priority should be given to mammography machines that remained non-compliant in inspections carried out a year apart.
Fernandes, Vilela[33] (2014)	To analyze the strategies for integrating health surveillance and care practices in the Stork Network, as well as the role of health surveillance and maternal and child health managers in the search for this integration.	The study made it possible to affirm that health surveillance practices are still isolated from other health practices; it highlighted the importance of managers in promoting the integration of health surveillance and maternal and child health practices, the need for collective spaces for discussion and health planning; managers' lack of knowledge about the role of Visa may be related to the difficulty in integrating these practices.	The inclusion of Visa in collective management spaces is a potential strategy for planning and implementing health actions in the context of maternal and neonatal care.
Alencar et al.[34] (2014)	To discuss the perception of health workers in relation to the disposal of medicines and to analyze this practice in primary health care services.	The results of the study showed that workers had little understanding of how to dispose of waste properly, that they carried out practices that differed from the legal provisions and that there was a lack of coordination between health surveillance and other health services.	By revealing the difficulties in implementing health service waste management, the study points to the need to develop strategies that involve managers, workers and users.
Corrêa et al.[35] (2012)	To evaluate the effectiveness of the mammography quality control program for the continuous monitoring of the services that make up the SUS network.	The study shows that the interventions of the Mammography Quality Control Program were effective in improving the quality of the test and monitoring the services that make up the SUS network in Goiás. The average percentages of compliance of the services were 64.1% on the first visit, 68.4% on the second and 77.1% on the third visit. The main improvements were due to adjustments to the breast compression force, automatic exposure control and alignment of the compression tray. The measured doses were within the compliance range in 80% of the services evaluated.	The implementation of the Quality Control Program in the services was effective in improving the operating parameters of the mammography machine, although 40% of the services did not reach the acceptable level of 70%. This result indicates the need for continuity in health surveillance.

Source: Prepared by the authors, 2023.
MG: Minas Gerais; SNVS: National Health Surveillance System; SC: Santa Catarina; ICU: Intensive Care Unit; CME: Material and sterilization centers; CC: Surgical centers; ANVISA: Brazilian National Health Surveillance Agency; SUS: Unified Health System; Visa: Health Surveillance.

ensure the effectiveness of its actions[24,39]. Incipient action planning practices[24] and practices isolated from other health practices[33,34] have shown the challenges to be overcome if health surveillance actions in health services are to be effective. Added to these challenges is the lack of tools for evaluating health surveillance actions.[4]

The study by Bourguignon et al.[27] proposed a logic model, based on health regulations made available by ANVISA which, like the inspection scripts, are intended to facilitate the health inspection process in health services.[39]

Chart 2. Most frequent non-conformities by type of health service found in 10 studies. Brazil, 2023.

Type of service	Most frequent non-conformities found in 10 studies
Health surveillance sector responsible for analyzing architectural projects for health and health-related establishments	Lack of accessibility, intersecting flows, spatial disorganization of environments, lack of or inadequate ventilation, little or no natural lighting, insufficient area or oversizing of environments, inadequate finishing materials, and placement in an inappropriate location.[22]
Pharmacies	Sharing the dispensing site with other activities. Notification of non-routine adverse events and technical complaints.[23]
CME, CC, and ICU	The services were assessed using the Potential Risk Assessment Model. The ICUs had the highest percentages of acceptable risk and the lowest percentages of non-acceptable risk. CMEs had the lowest percentages of acceptable risk and the highest percentages of non-acceptable risk. The percentages of acceptable potential risk are higher in the CCs of large hospitals, in the ICUs of medium-sized hospitals and absent in the CMEs and CCs of small hospitals.[25]
Hospitals: NSP	Low adherence to the fall prevention protocol and the pressure injury prevention protocol. Low adherence to the safe surgery checklist. Low adherence to pressure injury risk assessment and low adherence to fall risk assessment. [26]
Hospitals: NSP	Less than 50% of Brazilian hospitals have an NSP between 2014 and 2018. There was a 416% increase in the number of hospital NSPs, and adverse event notifications increased by over 900% in the same period.[28]
Public laboratories	Lack of standard operating procedures, flaws in the cleaning, disinfection and sterilization processes , unqualified equipment and lack of a technical manager during all working hours.[29]
Dialysis services	During the study period, the level of satisfactory results ranged from 85.8% to 98.0%, indicating an increase in the adequacy of dialysis services in producing water within the specified parameters. [30]
Hemotherapy services	The hemotherapy services were assessed using the Potential Risk Assessment Model. The following were found: failure to carry out internal audits, unvalidated critical processes, unvalidated blood component transport process, unapproved architectural plan or building not corresponding to the approved plan, unqualified equipment, lack of human resources training program, lack of staff training in biosafety and waste management and donor care in emergency situations.[31]
Health services with mammography	Failure to carry out monthly tests on the image quality of the mammograph, unqualified equipment, which showed flaws in the high-contrast details.[32]
Health services with mammography	The implementation of the image quality control program in mammography services was effective in improving the operating parameters of the mammography machine, although 40% of the services did not reach the acceptable level of 70%. The average compliance percentages of the services were 64.1% on the first visit, 68.4% on the second and 77.1% on the third. The main improvements were due to adjustments to the breast compression force, automatic exposure control and alignment of the compression tray. The doses measured were within the compliance range in 80% of the services evaluated.[35]

Source: Prepared by the authors, 2023.
CME: Materials and Sterilization Centers; CC: Surgical centers; ICU: Intensive Care Units; NSP: Patient Safety Center.

Chart 3. Health surveillance work processes and conditions highlighted in four studies. Brazil, 2023.

Type of service	Processes and working conditions in health surveillance highlighted in four studies
Health surveillance sector	Regarding action planning: incipient practice or prioritization of urgent demands, prioritized by management. Excessive demand from internal managers and the Public Prosecutor's Office, making it difficult to meet the work schedule. Working conditions: reduction in staff, precarious employment relationships, salary situation, availability of technological resources to carry out actions. [24]
Maternal and child health care services	The logic model compiles specific recommendations for maternal and child health services and can be a useful tool both for the organization and monitoring of services and for professionals working in Health Surveillance. [27]
Health surveillance services and the Stork Network	Health surveillance practices are still isolated from other health practices and are often identified only as inspection practices. Managers need to take a proactive stance and take part in discussions on integration between services. [33]
Basic health units, public pharmaceutical services and health surveillance services: waste management	The results showed little understanding on the part of workers at basic health units as regards the proper disposal of waste, the implementation of waste management practices that differ from the legal provisions and the lack of coordination between health surveillance and other health services.[34]

Source: Prepared by the authors, 2023.

CONCLUSIONS

This review made it possible to identify the non-conformities present in health services that represent non-compliance with the necessary requirements for safety and good operating practices. Therefore, health surveillance actions can be directed at these requirements, which have an impact on eliminating, reducing, or preventing risks to the population's health, as well as using assessment tools that allow the potential risk to be prioritized.

The literature has pointed to the need to strengthen management and improve working conditions within the scope of health surveillance services, which involves integration between management levels and adapting work processes. On the other hand, the studies recommend maintaining the monitoring programs developed by Visa, as they show results that indicate a reduction in health risks over the course of the monitoring.

As a limitation of this study, gray literature was excluded.

There are few studies dealing with health surveillance in Brazilian health services. It is therefore hoped that more studies will be carried out on health surveillance in health services.

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Authors' Contribution

Oliveira W - Conception, planning (study design), acquisition, analysis, data interpretation, and writing of the paper. Francisco QAS - Data analysis and interpretation. Freitas PS - Writing the paper. Martinez MR - Conception, planning (study design), and writing of the paper. All the authors approved the final version of the paper.

Conflict of Interest

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