

# Profile of food Sanitary Surveillance professionals in a Brazilian capital

## Perfil dos profissionais de Vigilância Sanitária da área de alimentos em uma capital brasileira

### ABSTRACT

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**Introduction:** The production and handling of foods are permanent issues to the Public Health due to the several safety risks they pose to human health. Therefore, it is important to gather information on food sanitary surveillance professionals. **Objective:** Characterize the profile and work routine of sanitary surveillance officers who work with food production and handling in Curitiba, Parana, Brazil. **Method:** The sample comprised 43 individuals, who completed a form containing questions on socio-demographical profile, education level and work routine. **Results:** Most professionals were women aged 31 to 50 years, with more than 5 years of experience in the area, who hold a graduate degree and have basic knowledge in foreign languages and IT. Different professional categories that composed the sample groups presented different income and uneven geographical distribution. In addition, the groups were characterized by frequent training, the use of forms during the inspections and other sanitary surveillance duties and report writing skills. However, they did not plan their duties ahead and were not aware of the municipality's health targets. They reported to be exposed to some kind of risk during their work agenda and to have inadequate working conditions. On the other hand, they acknowledged the value of their role and were satisfied with it. **Conclusions:** The interviewed officers are qualified professionals who are familiarized and content with their duties. Nevertheless, there are some hurdles to be overcome related to the valorization of their role in the Public Health.

**KEYWORDS:** Health Surveillance; Human Resources in Health; Food Inspection; Control and Supervision of Food and Beverages; Health Systems Agencies

### RESUMO

**Introdução:** Por haver uma série de riscos relacionados à produção e manipulação dos alimentos, estes se constituem em objeto de preocupação permanente para a Saúde Pública, sendo importante pesquisar informações a respeito dos profissionais de vigilância sanitária que exercem suas atividades nesta área. **Objetivo:** Caracterizar o perfil e os aspectos do processo de trabalho dos profissionais da Vigilância Sanitária que atuam na área de alimentos de Curitiba, Paraná, Brasil. **Método:** A amostra foi composta por 43 profissionais, que responderam a um formulário, com questões fechadas sobre perfil sociodemográfico, educacional e processo de trabalho. **Resultados:** A maioria dos profissionais eram mulheres, com idade entre 31 e 50 anos, tempo de serviço na Vigilância Sanitária maior que 5 anos, com curso superior e conhecimentos básicos de línguas estrangeiras e de informática. As diferentes categorias profissionais que compunham as equipes apresentaram disparidade salarial e uma distribuição territorial desigual. Além disso, capacitação frequente, uso de roteiros durante as inspeções e facilidade para desenvolver rotinas e relatórios diários. No entanto, não planejavam as ações de vigilância sanitária no nível local e desconheciam as metas de saúde do município. Consideraram que estão expostos a algum risco no exercício do seu trabalho e alegaram não possuir adequadas condições de trabalho. Por outro lado, julgaram seu trabalho importante e que estão satisfeitos com ele. **Conclusões:** Os profissionais são qualificados, estão familiarizados com o serviço realizado e satisfeitos. Contudo, existem dificuldades a serem superadas, no sentido de fortalecer o seu trabalho, para que sejam reconhecidos efetivamente como agentes transformadores da saúde pública.

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## INTRODUCTION

One of the fields of action of the Brazilian Unified Health System (SUS) is health surveillance (VISA). Recognized as the oldest area of Public Health, it is a cross-disciplinary field, with complex actions that comprise the prevention of risks and damages, and the promotion and protection of the population's health<sup>1</sup>. Based on the legal definition of health surveillance, it is possible to divide its actions into three main groups: 1) Products of interest to health: food, medicines, cosmetics, sanitizing products and others; 2) Health and health services; 3) Environment, including work environment<sup>2</sup>.

With regard to food and nutrition issues, one of the missions of health surveillance is to conduct actions to minimize or prevent food-related health risks<sup>3</sup>. According to Decree-Law n. 986, of October 21, 1969<sup>4</sup>, food "is any substance or mixture of substances in the solid, liquid, pasty or any other suitable form, intended to supply the human body with the normal elements for its functioning, maintenance and development."

Article 3 of Law n. 8.080, of September 19, 1990, rules that food is one of the determining and conditioning factors of the health of the population, whose levels express "the social and economic organization of the country". In Article 6, the following items are described as specific attributions of the SUS: "nutritional surveillance and diet guidance", and "control of consumer goods that directly or indirectly relate to health, including all steps and processes, from production to consumption", the latter of which is attributed to the area of sanitary surveillance<sup>5</sup>. Thus, the role of Health Surveillance teams is fundamental to the enforce this public policy, and it is necessary to strengthen and focus their actions in order to ensure the sanitary quality of food and thus protect health according to the perspective of the Human Right to Adequate Food (HRAF)<sup>6</sup>.

In order to inspect establishments in the food area as to their hygienic-sanitary aspects, some actions are carried out by teams of Health Surveillance professionals, mainly at the municipal level<sup>7,8,9</sup>. The role of teams during inspections is to observe and evaluate sites with regard to their facilities, production flows, technical-operational routines and hygiene conditions, which must be compliant with existing health regulations<sup>7</sup>, to ensure the safety of the products and services provided.

In addition to the inspections, professionals can also assist in regularizing processes, keeping the registration/files of the establishments updated, licensing establishments, conducting monitoring and control programs (sample collection and laboratory analysis) of products, services, market and publicity, conducting education actions in the community and the regulated sector, outbreak investigation together with epidemiological surveillance, developing strategies to deal with informal labor, responding to complaints, everything with the objective of minimizing health risks<sup>1,10,11</sup>. Thus, the diversity of roles and the wide variety of activities these professionals perform are located between "science, health and the market"<sup>11</sup>.

In order to ensure the performance of these activities and the proper functioning of the Health Surveillance service, the challenge is to overcome the barriers that interfere directly in the work process, like insufficient or inadequate facilities and equipment, lack of vehicles and resources to carry out the activities, insufficient human resources or human resources without the necessary training, poor administrative organization and lack of proper planning, and outdated health information systems and codes<sup>2,12,13,14</sup>.

The latest Brazilian studies on the profile and work process of Health Surveillance professionals<sup>2,14</sup> have shown that these were mostly males, aged 31 to 50 years, statutory, with high-school education, and from various professional categories. The activities were performed in their own vehicles, they had computers with internet access and with updated information systems for collection and registration of establishments, as well as phone lines to serve the population, in rooms of their own. They said they were familiar with the health surveillance guidelines, objectives and goals, set out in the Municipal Health Plan. On the other hand, there were pay gaps between professional categories, they had been working in the Health Surveillance body for up to 5 years, they did not have adequate equipment for inspection actions and the resources available were not enough for the performance of health surveillance actions<sup>2,14</sup>. There were no data separated by health surveillance area of activity, especially the food area.

It is known that there is a series of risks related to the production and handling of food. These risks are a matter of permanent concern for Public Health, since despite the existing sanitary control and legislation, which set out hygienic-sanitary requirements, there are still irregularities in food establishments and health risks associated with food<sup>7,11,13,15</sup>.

The city of Curitiba, capital of the Brazilian state of Paraná, has an economic profile based on commerce and services. In recent years, it has stood out because of its hotel network and dining options, attracting domestic and international events<sup>16</sup>. It was one of the first cities to decentralize/municipalize health surveillance actions in Brazil, in 1992. Ever since then it has been a reference in the development and implementation of activities in this area<sup>7,16</sup>.

From 2005 to 2015, 97,275 food service inspections were conducted in Curitiba, of which 70.1% found irregularities<sup>7</sup> concerning the requirements of the current sanitary legislation<sup>17</sup>. This indicated that despite the significant number of inspections in food establishments and an existing service organization of over 25 years, there are still challenges in the work process of these teams.

In this context, by establishing the diagnosis of the profile and aspects of the work process of Health Surveillance professionals in the food sector of this city, we expect to promote some reflection about its organization and management, which may



contribute to the design of professional training policies and continuing education, in addition to enabling a more suitable work process focused on valuing the actions that are done in this context. The objective of this study was to characterize the profile and aspects of the work process of Health Surveillance professionals working with food in Curitiba.

## METHOD

A quantitative, descriptive, exploratory and cross-sectional study was carried out between October and November 2015, with Health Surveillance professionals who worked in the nine sanitary districts of Curitiba (Matriz, Portão, Boqueirão, Boa Vista, Cajuru, Santa Felicidade, Pinheirinho, CIC, Baixo Novo).

The study was approved by the Research Ethics Committee of the Federal University of Paraná under n. 043175/2015 and the Municipal Department of Health, protocol n. 60/2015.

In order to prepare the study sample, we selected all the professionals based at the Health Surveillance body of the municipality who performed their activities in the food area, totaling 53 people. As inclusion criteria we defined: professionals who did not occupy management positions (managers, coordinators); those who carried out inspections in the area of food; and those who signed the Informed Consent Form (ICF). The final sample had 43 professionals.

Data collection was done via questionnaire, with close-ended questions, based on the questions of the National Census of Health Surveillance Workers 2004<sup>14</sup>, which addressed: 1) socio-economic profile of the professionals: gender, age and origin; 2) professional profile: work before Health Surveillance; time of service in Health Surveillance, weekly workload, employment, salary, salary bonus, workplace, police power, salary-compatible activity; 3) education profile and training of the inspectors: knowledge of English and Spanish languages, computer skills, current training, courses in the area of Health Surveillance, training in service; and 4) work process of Health Surveillance professionals: knowledge of the goals, planning of health actions, number of processes under their responsibility, use of scripts and challenges in using them, ability to write inspection reports, standardization of actions, work conditions, exposure to risks, importance of their role in Health Surveillance, level of satisfaction and work when they performed activities in other sectors.

In order to evaluate the distribution of Health Surveillance professionals working in the area of food by sanitary district, a survey was done in the ESaúde<sup>a</sup> information system of the municipality, considering the region, the total number of food establishments and the number of food professionals in each region.

For data collection, the questionnaire was delivered together with the ICF, during visits to the sanitary districts. The professionals had 24 hours to answer the questionnaire and send it

back. All questionnaires were considered, however, when at least one variable were not filled out, it was disregarded.

The results were analyzed from descriptive statistics and the values were adjusted to 100%. In order to verify the association between variables of interest, we used Chi-square and Fisher's exact association tests with significance level of  $p < 0.05$  (95%), both using Statistical Analysis System software, version 9.2.

## RESULTS

The socioeconomic profile of the professionals showed that the majority were female (83.72%,  $n = 36$ ), between 31 and 50 years old (76.75%,  $n = 33$ ), born in the state of Paraná (81.40%,  $n = 35$ ) and in the city of Curitiba (60.47%,  $n = 26$ ).

Regarding the professional profile, 83.33% ( $n = 35$ ) did not work in the food area before working in the Health Surveillance inspection teams. In addition, 54.76% ( $n = 23$ ) had been working for more than 5 years, and had a workload of 30 hours a week (65.12%,  $n = 28$ ). They all had statutory employment bond (76.74%,  $n = 33$ ). Most had worked only in Health Surveillance and reported having police power (95.24%,  $n = 40$ ) (Table 1).

In addition, 90.24% ( $n = 37$ ) reported they received pay bonuses, and life risk was the most commonly received type of bonus (43.90%,  $n = 18$ ). In the evaluation of their salaries, 41.46% ( $n = 17$ ) of the professionals received more than BRL 4,000.00, followed by salaries between BRL 3,001.00 to BRL 4,000.00 (39.02%,  $n = 16$ ) (Table 1). Furthermore, 86.05% ( $n = 37$ ) of them deemed the income they receive incompatible with the activities they perform.

When evaluating the distribution of Health Surveillance professionals working with food by region and sanitary district, it was verified that the Central Region of Curitiba was the one with the highest number of inspectors, followed by the Eastern and Southern Regions, with 12, 10 and nine professionals, respectively. These regions also had the highest number of establishments, with 93,352 records in the Central Region, 36,507 in the Eastern Region and 17,391 in the Southern Region (Table 2).

When sanitary districts were individually analyzed (Table 2), there was variation in the number of establishments among sanitary districts, with emphasis on the districts of Matriz, Portão, Boqueirão and Boa Vista. These districts were also the ones with the highest number of professionals, along with the district of Bairro Novo. However, when assessing the number of professionals according to the number of establishments, the territorial distribution of professionals by district and in the municipality as a whole is uneven, with the districts of Matriz (1: 9,201.14), Portão (1: 5,788.80) and Santa Felicidade (1: 4,846.00) having the highest number of establishments per professional.

<sup>a</sup> ESaúde is the information system of the health department of Curitiba, Paraná, Brazil, in which all health surveillance records are stored.



Regarding the educational profile and the training of these professionals, 69.77% (n = 30) reported some knowledge of the English language and 58.14% (n = 25) of the Spanish language,

**Table 1. Professional profile of Health Surveillance workers in the food area of Curitiba, Paraná, Brazil, 2015.**

Variable	Number (n)	Percent (%)*
Worked in the area of food before Health Surveillance (n = 42)		
Yes	7	16.67
No	35	83.33
Time of service in Health Surveillance (n = 42)		
Up to 5 years	19	45.24
More than 5 years'	23	54.76
Weekly workload (n = 43)		
20 h	15	34.88
30 h	28	65.12
Employment/workplace/action/bonus		
Statutory (n = 43)	43	100.0
Working only in Health Surveillance (n = 43)	33	76.74
Has police power (n = 42)	40	95.24
Receives salary bonus (n = 41)	37	90.24
Bonus type (n = 41)		
Unhealthy work	2	4.88
Life risk	18	43.90
Length of service (years)	9	21.25
Others	12	29.27
Wage (BRL) (n = 41)		
Up to 3,000.00	8	19.51
3,001.00 to 4,000.00	16	39.02
More than 4,000.00	17	41.46

\* The form was disregarded and the values were adjusted to 100% when the professional did not answer at least one variable.

with predominance of basic levels in both; and the majority (95.24%, n = 40) had computer skills. The results also showed that 81.39% (n = 35) of the professionals had higher education, 55.81% (n = 24) had specialization and 9.30% (n = 4) had a master's degree. The most common professions at the higher education level were veterinarian (25.58%), dietitian (20.93%) and nurse (16.27%), and at the high school level there were nursing assistants (20.93%) and sanitation technicians (2.32%), revealing the multiprofessional profile of Health Surveillance teams. As for training courses, 48.83% (n = 21) reported having done some training in the area of health surveillance over the last year (Table 3).

About work processes, 51.22% (n = 21) of the professionals reported that they did not know the health goals of their area of coverage and 69.77% (n = 30) stated that they did not plan their health actions (Table 4).

When asked whether they worked with other sectors, 76.19% (n = 32) said yes (Table 4). The most cited sectors were epidemiological surveillance and the urban planning department, and these actions (intra and intersectoral) occurred, mostly, in emergency situations (76.19%, n = 32). About job demands, 69.05% (n = 29) of the professionals reported having less than 80 processes registered in the system under their responsibility.

In order to assist in their activities, most professionals declared using scripts for inspections (71.43%, n = 30) and had no difficulty using them (78.57%, n = 33). They had no difficulty drafting inspection reports (88.10%, n = 37), which shows that they were familiar with the task. Despite this, 95.35% (n = 41) reported that greater standardization of the actions performed in the entire service was required. When questioned whether the working conditions were appropriate for Health Surveillance actions, 85.71% (n = 36) said no, and 97.62% (n = 41) stated that they were exposed to some risk during the performance of their activities (Table 4), such as risks to their physical integrity, exposure to diseases, hazardous substances and stress.

**Table 2. Distribution of Health Surveillance professionals working in the area of food by health district, Curitiba region, Paraná, Brazil, 2015.**

Sanitary District	Region	Establishments in the food area* (n)	Professionals** (n)	Professionals/number of establishments ratio
Matriz	Central	64,408	7	1/9,201.14
Portão	Central	28,944	5	1/5,788.80
Boqueirão	East	20,779	6	1/3,463.16
Boa Vista	Northeast	20,447	5	1/4,089.40
Cajuru	East	15,728	4	1/3,932.00
Santa Felicidade	Northeast	14,538	3	1/4,846.00
Pinheirinho	South	10,275	4	1/2,568.75
CIC	West	8,395	4	1/2,098.75
Bairro Novo	South	7,116	5	1/1,423.20

\*Total number of establishments in the food area in the health district registered in ESaúde; \*\*Number of Health Surveillance professionals who work in the area of food by health district and who participated in the survey.



It was found that 97.67% (n = 42) of the respondents believed that their role was important, since it is directly related to the prevention of Public Health risks. In addition, 65.12% (n = 28) answered that they were satisfied with their work (Table 4).

**Table 3. Education profile and training of Health Surveillance workers in the food area of Curitiba, Paraná, Brazil, 2015.**

Variable	Number (n)	Percent (%)*
Current training (n = 43)		
Middle/Technical	8	18.60
Higher education	7	16.28
Specialization	24	55.81
Master's	4	9.30
Occupation (n = 43)		
Veterinarian	11	25.58
Dietitian	9	21.93
Nursing assistant	9	21.93
Nurse	7	16.27
Dentist	2	4.65
Sanitation technician	1	2.32
Oral health assistant	2	4.65
Pharmacist	1	2.32
Biologist	1	2.32
Oral hygiene technician	0	0.00
Did any course on Health Surveillance (n = 43)		
Last year	21	48.83
2 years ago	7	16.27
Over 2 years ago	8	18.60
Never did	7	16.27

\* The form was disregarded and the values were adjusted to 100% when the professional did not answer at least one variable.

In this study, when we evaluated the association between the socioeconomic profile and the work process of these professionals, we noticed that those who earned a salary above BRL 4,000.00 were those who reported better working conditions, and those earning a salary of BRL 3,000.00 to BRL 4,000.00 reported being more satisfied with their work. However, there was no significant difference in either of the tests (p = 0.6607).

Even though most of the professionals used scripts during the inspections, the highest frequency of use was recorded among those with service time of up to 5 years, although this variable did not have a significant difference (p = 0.5539). Another association evaluated was the variable of service time and difficulty in writing inspection reports. Although there was no statistical association (p = 0.3425), we noticed that the group that had the greatest difficulty also had the shortest service time (up to 5 years). Furthermore, professionals who reported the use of scripts were those who considered that standardized actions were more necessary, but without statistical difference (p = 0.4918).

## DISCUSSION

The identification of the socioeconomic profile revealed the prevalence of female professionals in their productive maturity. The trend toward female predominance in Health Surveillance teams was already expected, since this profile is typical of some healthcare professionals<sup>18</sup>. The fact that the majority are women at a mature age is considered positive for the Health Surveillance service, since they would be more committed to the activities they perform<sup>19</sup> and able to have some autonomy in the decision making and execution of health-related services<sup>18</sup>. According to the latest studies on the profile of Health Surveillance professionals, data from this study differ from previous ones, in which most of the workers were male and had completed high school education, revealing a new characteristic of Health Surveillance teams in Curitiba<sup>2,14</sup>.

**Table 4. Work processes followed by Health Surveillance workers in the food area of Curitiba, Paraná, Brazil, 2015.**

Variable	Yes*		No*	
	n	%	n	%
Familiar with health goals (n = 41)	20	48.78	21	51.22
Plans health actions (n = 43)	13	30.23	30	69.77
Works with other sectors (n = 42)	32	76.19	10	23.81
Uses scripts during inspections (n = 42)	30	71.43	12	28.57
Has difficulty using the scripts (n = 42)	9	21.43	33	78.57
Has difficulty drafting inspection reports (n = 42)	5	11.90	37	88.10
Has adequate working conditions (n = 42)	6	14.29	36	85.71
Exposed to risk at work (n = 42)	41	97.62	1	2.38
It is necessary to standardize the actions (n = 43)	41	95.35	2	4.65
The role played is important (n = 43)	42	97.67	1	2.33
Satisfied with the work (n = 43)	28	65.12	15	34.88

\* The form was disregarded and the values were adjusted to 100% when the professional did not answer at least one variable.





The professionals reported that they did not have any experience in the area of food prior to Health Surveillance, which may indicate unpreparedness and inexperience in relation to the topic. They should be able to perform their activities to identify potential health risks, to understand existing legislation, their obligations and responsibilities with food services and the population<sup>9</sup>.

Because of its diversity and complexity, especially in the area of food, Health Surveillance requires expertise for its effective execution, and this depends on the knowledge built by the people in charge of it<sup>7,13</sup>. In this sense, it is necessary to invest in the training of these professionals, in addition to promoting a continuous process of education of other health professionals and SUS managers, including topics related to Health Surveillance<sup>20,21</sup>. Therefore, offering training immediately after someone is appointed, in addition to a more specialized selection process for those who will perform this type of activity, becomes an indispensable tool.

Although most professionals revealed that they did not have food expertise prior to their work in Health Surveillance, they have now demonstrated to be skilled and prepared, routinely using scripts, preparing reports, and showing familiarity with these procedures. This is satisfactory, because when trained, workers feel more confident before different food production processes, which increases the efficacy of their control and the quality of the work they do<sup>9,22</sup>. In addition, once these professionals are familiar with the process, they may also be able to identify shortcomings and provide clear and easily understandable instructions<sup>23</sup>.

The use of scripts during the performance of the service can also be considered an important aspect, since these instruments enable the standardization of the procedures adopted by the professionals<sup>24,25,26</sup>. This helps these workers to have support and confidence to do their work in the sanitary districts of the municipality. Moreover, these tools enhance the consistency of the inspection and the efficacy of the control, reduce the time of application and increase the quality of the inspection<sup>9</sup>. Finally, it is worth emphasizing that these scripts should be repeatable and have good cost-effectiveness and practicality<sup>26</sup>.

In this study, it became evident that the food-related Health Surveillance teams of Curitiba have a multiprofessional nature, with high-school and higher-education workers of various professional categories. The same was observed in the last Brazilian studies on the profile of Health Surveillance professionals, which have also shown the incorporation of new professions over the last 14 years<sup>2,14</sup>. It is helpful to have teams with this profile, since professional training plays an important role both in providing and understanding the skills necessary for the job, as well as in ensuring that the monitoring and control of health risks are carried out in a consistent fashion<sup>9,15</sup>. This multiprofessional nature of Health Surveillance teams also contributes to the theoretical and technical production in the area, with health benefits to the population<sup>13</sup>.

Therefore, the training of these professionals can influence their level of familiarity with the production processes and contribute significantly to the clarity of the guidelines provided to those

responsible for the inspected companies, to the execution of a specific program, or to actions within the community. Additionally, the empowerment of these professionals assists in the analysis of risk points in production, provides adequate guidance on legislation and helps them promote the necessary hygienic-sanitary improvements<sup>23</sup>.

Despite the multiprofessional nature of the workers, all had a statutory employment relationship and the majority did not work elsewhere, which is a good thing, since multiple jobs can create situations of vulnerability with respect to professional intervention, especially in ethical issues that involve police power<sup>11,14</sup>, which is based on the principle of the predominance of the public interest over the private<sup>21</sup>. Police power is defined as the set of attributions granted to the Public Administration to administer and restrict individual rights and freedoms in favor of the public interest.

The enforcement of this power can be effective in the normative production and sanitary inspection of Health Surveillance, which has administrative acts of self-execution, obliging the subjects to submit themselves to legal-administrative precepts, designed from the perspective of collective interests in impositions established by the law<sup>27</sup>.

Because it is a competency established by the law, almost all the professionals evaluated claimed to have police power, which guarantees free access to food establishments and legitimizes their actions. On the other hand, the population's awareness of this police power can associate these professionals with a normative, punitive and authoritarian position, which may hinder actions with the community and the companies.

The discrepancy between the number of professionals and the number of food establishments in the city's various health districts can be a challenge for the work of Health Surveillance teams, since the proper standardization and qualification of these actions are directly related to adequate staffing<sup>21</sup>. Therefore, a greater demand for requests for processes and complaints and, consequently, difficulties and delays in their performance may interfere in the effectiveness of the services.

Regarding the service demands, according to Lucena<sup>12</sup>, the organization of Health Surveillance actions is the responsibility of the regulations of each municipality. We could not identify in this study whether the number of processes under the responsibility of each technician was high or not, since the municipality does not determine this clearly. Nonetheless, we could perceive that this number varies greatly among professionals, without any type of criteria. In this context, it would be important to rethink their work process and verify the distribution of the processes according to the risks presented by the establishments, in addition to the size, structure and resources available in the work unit, its demands and the territory profile. If these aspects are not observed, there may be interference in the frequency of visits to establishments, in decision-making, as well as in the progress of such processes.



When considering the recommendations for developing countries regarding the annual number of inspections in food establishments, we find that the number of professionals in this study is insufficient for the number of establishments surveyed. In Canada, for example, in the municipality of Saskatoon, it is recommended that there be at least one inspection a year for most establishments related to food production, thus contributing to the provision of safe food to the consumers<sup>15</sup>. The Food and Drug Administration Food Code recommends that three inspections be carried out per year in full service food providers<sup>28</sup>.

In Curitiba, at the time of the study, there was a recommendation of the number of inspections, according to the risk and size of the establishment, set out in municipal legislation<sup>29,30</sup>. However, on July 23, 2018, a new Resolution was published by the Municipal Department of Health<sup>31</sup>, which classifies food establishments as high and low risk, according to the risk of damage to physical integrity and health and establishes new deadlines for the return of inspections to these establishments. Because of this new classification, most establishments in the food sector, like food services in general, are exempt from the prior inspection process to receive a sanitary license, which is valid for 5 years after its issuance. That is, prior sanitary inspection of the site by the Health Surveillance body is not required for the issuance of a sanitary license<sup>31</sup>. This Resolution does not address inspections for preventive measures.

Because it is a new resolution, its application and effectiveness will be tested in the coming years, especially in terms of prevention of health risks to the population. However, it should be noted that, when considering the number of professionals and establishments, its enforcement may be hampered, since even if there is a waiver of prior inspection, there may be subsequent sanitary inspections<sup>31</sup>.

Most of the professionals interviewed in the study reported working with other departments to assist in the enforcement of the activities. Among the most cited sectors are epidemiological surveillance (intra-department) and the Department of Urban Planning (inter-department). This is because it is often necessary to partner with other departments to address certain health problems and ensure more effective health surveillance. That is the case of investigations of Outbreaks of Foodborne Diseases, in cases of non-regularized or informal establishments, among other situations. This interface of Health Surveillance with other departments, like epidemiological surveillance, is of great relevance. By sharing expertise and technologies, this increases the possibility of achieving the objectives of health and quality of life of the population<sup>20</sup>.

There is a discussion about the prospect of change in the health-care model, focusing on different concepts of Health Surveillance and its potential to integrate health promotion and protection practices within the SUS<sup>21,32</sup>. In this sense, it is understood that health depends not only on the health sector, but also on inter-department actions with an expanded concept of surveillance. This can foster the joint action of health professionals and other stakeholders in the health-disease process in favor of the community's health.

One of the aspects that stood out in the study was the lack of knowledge of health professionals in relation to the health goals of their area of coverage, lack of planning and standardization of health actions. The same was observed in the last studies on the profile Health Surveillance professionals, demonstrating that apparently there has not been much progress in this aspect over the last 14 years<sup>2,14</sup>. This is a problem because these criteria are fundamental for the conduction of strategic actions of sanitary risk management, such as the monitoring of the hygienic-sanitary conditions of food establishments, quality control of the products served, sample collection and laboratory analysis, outbreak investigation and disease control, whose determinant factors are in this field of action<sup>12</sup>.

According to Laikko-Roto et al.<sup>9</sup>, Health Surveillance procedures should be planned based on the knowledge of the main risks in the territory. Thus, the fact that some professionals do not plan their actions and work with other sectors in emergency arrangements suggests that there is a reversal of the role of Health Surveillance; which should be based on planned actions, focused on risk prevention and health protection and promotion, in line with other sectors like Education, Social Action, Supply and Urban Planning, to enhance the solution of problems.

The lack of planning and standardization may also be related to each professional's perception of risk, since it consists of their ability to:

interpret a situation of potential harm to the health or life of a person or third parties, based on previous experiences, and their extrapolation to the future, since this ability can vary from a vague opinion to a strong belief<sup>33</sup>.

Based on these perceptions, it is possible to design tools that enable the strategic formulation of political and institutional priorities<sup>34</sup>.

With regard to health risk and standardization of actions, it is necessary to develop techniques that help professionals identify the real risk in their perceived risk, in order to increase their ability to recognize hazards and minimize risks and to standardize decision-making in the face of actual risks<sup>34</sup>.

This action planning and these perceptions come about in a territory with multiple dimensions, of which the following stand out: geographical, legal-political, cultural, sanitary and economic. Based on these dimensions, different conceptions of territory and territoriality can be noticed, either by the community, by the regulated sector, by health professionals and by the municipal administration<sup>35</sup>.

In order for Health Surveillance professionals to take ownership of the territory, a so-called territorialization process is fundamental. It consists of the production of maps that indicate the main objects of health interest in the territory, including those subject to Health Surveillance intervention, locating the risks and damages arising from these objects. This information provides standards and parameters, according to the particularities and areas of operation, in line with the needs of the territory, helping to minimize or prevent health risks arising from the production,



distribution, marketing and consumption of goods and services of interest to the Health Surveillance of these regions<sup>36</sup>.

The difficulty in integrating these practices may be related to the managers' lack of knowledge about the importance of Health Surveillance work for collective health and its role in promoting and preventing risks and damages and promoting and protecting the health of the communities. The perception that Health Surveillance actions are only inspection-based and the understanding that one area does not depend on the other also contribute to this absence of integrated work<sup>11</sup>.

Considering the daily work of Health Surveillance professionals, whose role is to protect and promote the health of the population, it was verified that pay gaps, incompatibility of the activities with the wages, and the exposure of these professionals to risky situations like threats to their physical integrity, exposure to diseases, hazardous substances and stress deserve careful consideration, since these professionals often feel vulnerable and unprotected in their work environment and routine<sup>9</sup>.

The latest Brazilian studies on the profile of Health Surveillance<sup>2,14</sup> pointed to a series of challenges faced by Health Surveillance teams, including shortcomings in infrastructure, material and human resources. These studies demonstrated that there is still a long way to come to improve the services rendered by Health Surveillance teams, especially regarding the absence of training and education policies for these workers<sup>18</sup>.

Since 2007, minimum requirements related to structuring and strengthening Health Surveillance management have been set, including investment in facilities, equipment, information system, updating of legislation and training of technical staff<sup>11</sup>. This fact shows that, despite some progress in the funding of Health Surveillance actions, the problems remained, mainly regarding structural and personnel management, and this can directly affect working conditions.

According to the results of this study, we observed that in Curitiba these issues did not advance much over these years. This shows that we are still far from adequately recognizing these professionals and the actions they perform. The challenge is even greater in the current social, political and economic scenario. In this context, "the work of Health Surveillance as a social practice in the regulatory activities of the State seems to be much more focused on reproducing and expanding capital than on ensuring the protection of collective health"<sup>9</sup>.

Although there has been an increase in the volume of funds destined to the sector and the monitoring of its execution by the National Health Surveillance Agency<sup>37</sup>, suggesting greater visibility of Health Surveillance in health management and a broader scope of its actions<sup>11</sup>, the work done in Curitiba is not communicated to the population, which makes it even more unlikely to be recognized as an act of health protection. However, professionals said that they believed that their role was important because it was directly related to the prevention of risks to public health. They reported satisfaction with their work and commitment to Health Surveillance procedures.

## CONCLUSIONS

Health Surveillance professionals play a fundamental role in protecting health and establishing ethical relations between production and consumption, as well as in ensuring the quality of goods and services offered by the regulated sector, in order to contribute to the improvement and quality of life of the Brazilian population and guarantee the fundamental right to health.

The present study revealed positive aspects related to the profile of health surveillance professionals in the food area, like qualification, training, familiarization with procedures and work routines, recognition of the importance of the work done and satisfaction with this work, which may favor good professional performance.

On the other hand, the challenges pointed out in the study stand out, as they relate to the basic requirements of Health Surveillance professionals, like: lack of knowledge about the health goals of their area of coverage, lack of participation in planning the actions of the municipality; inadequate working conditions; and exposure to risks during the conduction of their activities. This indicates that there is the need to strengthen the work of these professionals, so that they are recognized as effective transforming agents of public health.

Therefore, it becomes evident that the professionals who work in the area of food in the Health Surveillance body of Curitiba face some challenges in their work process. These are complex challenges that require training for greater effectiveness and better structuring of the services, in addition to suitable and available resources (both material and human), expanding the ability of the teams to properly do Health Surveillance work.

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#### Conflict of Interest

Authors have no potential conflict of interest to declare, related to this study's political or financial peers and institutions.



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