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Profile and performance of professionals working in Health Surveillance and Primary Health Care in the I Regional Health Management of the state of Pernambuco

Perfil e atuação dos profissionais atuantes na Vigilância em Saúde e na Atenção Primária em Saúde na I Gerência Regional de Saúde do estado de Pernambuco

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ABSTRACT

Introduction: The integration between the Health Surveillance and Primary Health Care sectors in the National Health System (SUS) is an essential condition for achieving results that meet the health needs of the population. **Objectives:** To outline the training profile of health professionals and the integrated action between Health Surveillance and Primary Health Care in the I Regional Health Management (I GERES) of the state of Pernambuco. **Method:** A quantitative descriptive observational epidemiological study was carried out, using the cross-sectional survey research method. Data were collected through semi-structured questionnaires, which were applied to higher-level health professionals working in Health Surveillance, containing open and closed questions on the following variables: training, performance, professional bond and integrated actions. **Results:** Among the 381 professionals interviewed, 19.16% (73/381) worked in Health Surveillance, while only 1.84% worked in Occupational Health Surveillance. Among the 381 participants, 50.39% had an effective bond and 97.11% participated in training. Regarding integrated activities between Health Surveillance and Primary Health Care, 71.65% of professionals reported not developing such practices. **Conclusions:** It was possible to conclude that there are weaknesses and potentialities inherent to the training and working conditions of Health Surveillance and Primary Health Care professionals, and failures in the integration (intraSUS) between these sectors. It is suggested that managers of I GERES develop intervention strategies that improve the conditions of qualified training of professionals and the quality of services provided to the population.

KEYWORDS: Primary Health Care; Permanent Education; National Health System

RESUMO

Introdução: A integração entre os setores de Vigilância em Saúde e Atenção Primária em Saúde no Sistema Único de Saúde (SUS) constitui condição essencial para o alcance de resultados que atendam às necessidades de saúde da população. **Objetivos:** Traçar o perfil da formação dos profissionais de saúde e da atuação integrada entre Vigilância em Saúde e Atenção Primária em Saúde na I Gerência Regional de Saúde (I GERES) do estado de Pernambuco. **Método:** Foi realizado um estudo epidemiológico observacional descritivo quantitativo, com uso do método de pesquisa de *survey* de forma corte-transversal (*cross-sectional*). Os dados foram coletados por meio de questionários semiestruturados, aplicados aos profissionais de saúde de nível superior que atuam na área de Vigilância em Saúde, contendo questões abertas e fechadas sobre as seguintes variáveis: formação, atuação, vínculo profissional e ações integradas. **Resultados:** Entre os 381 profissionais entrevistados, 19,16% (73/381) atuavam na Vigilância Sanitária, enquanto apenas 1,84% atuavam na vigilância em saúde do trabalhador. Entre os 381 participantes, 50,39% possuíam vínculo efetivo e 97,11% participaram de capacitações. Em relação às atividades

integradas entre a Vigilância em Saúde e Atenção Primária em Saúde, 71,65% dos profissionais relataram não desenvolver tais práticas. **Conclusões:** Há fragilidades e potencialidades inerentes à formação e às condições de trabalho dos profissionais da Vigilância em Saúde e Atenção Primária em Saúde, além de falhas na integração (intraSUS) entre esses setores. Sugere-se aos gestores da I GERES a elaboração de estratégias de intervenção que melhorem as condições de formação qualificada dos profissionais e a qualidade dos serviços prestados à população.

PALAVRAS-CHAVE: Atenção Primária em Saúde; Educação Permanente; Sistema Único de Saúde

INTRODUCTION

Health Surveillance (HS) is a continuous and systematic process of collecting, consolidating, analyzing data and disseminating information on health-related events, with a view to planning and implementing public health measures, including regulation, intervention and action on health conditions and determinants, for the protection and promotion of the population's health, prevention and control of risks, injuries and diseases[1].

The area of health surveillance encompasses the surveillance, prevention and control of diseases and health problems, and should be a space for the articulation of knowledge and techniques. It comprises surveillance and control of communicable diseases, surveillance of non-communicable diseases and illnesses, surveillance of health status, environmental health surveillance, occupational health surveillance and health surveillance[2].

In addition, health promotion must be integrated into all levels of health care on a daily basis. Based on the knowledge and practices of epidemiology, health situation analysis and the social determinants and conditioning factors of health, Primary Health Care (PHC) health teams can program and plan actions in order to organize services, increasing the population's access to different health activities and actions[2].

The National Health Surveillance Policy (NHSP) presupposes the inclusion of health surveillance actions in all instances and points of the Health Care Network (HCN) of the Unified Health System (SUS), through the articulation and joint construction of protocols, lines of care and health matrix, as well as the definition of strategies and devices for the organization and flows of the care network. In addition, one of its guidelines is the construction of management and work practices that ensure comprehensive care, with the insertion of health promotion actions throughout the HCN and especially in PHC, as the coordinator of care[1].

PHC is the set of individual, family and collective health actions that involve promotion, prevention, protection, diagnosis, treatment, rehabilitation, harm reduction, palliative care and health promotion, developed through integrated care practices and qualified management, carried out with a multi-professional team and aimed at the population in a defined territory, over which the teams assume health responsibility[3].

After the reformulation of the National Primary Care Policy (NPCP), health promotion was included among its actions, and integration between health promotion and PHC became an essential condition for achieving results that meet the population's health needs. In addition, this integration seeks to establish work processes that take into account health determinants, risks and harms, from an intra- and intersectoral perspective[1,3].

Improving the services provided to the population by the professionals who make up the SUS therefore involves seeking to guarantee them favorable working conditions[4]. However, shortcomings in the training of health promotion coordinators, as well as precarious professional ties with the health service, are factors that hinder actions in this area[5].

In a study carried out in the state of Pernambuco, the authors identified deficiencies in the academic training of workers, precarious working conditions and a lack of financial resources, which constitute weaknesses in the work of professionals in the area. On the other hand, as potential, they found the offer of Permanent Health Education (PHE) actions, suggesting that health managers look for alternatives that address the situation of health professionals and minimize the effects of poor academic training[6].

Data from the National Census of Health Surveillance Workers, carried out by the National Health Surveillance Agency (Anvisa) in 2004, revealed that there are weaknesses involved in the working conditions and performance of these professionals, such as the fact that around 60% of Health Surveillance workers have worked in this area for less than five years, which highlights the difficulty in retaining workers: one of the most pressing issues for the development of services[7].

In addition, the lack of scientific production characterizing the profile of health care professionals makes it difficult to understand the real difficulties they face and prevents managers from planning effective interventions to improve working conditions and performance.

In view of this, this study aimed to describe the training profile and characteristics of the employment relationship of health professionals with higher education, as well as the articulation between SUS bodies (intraSUS), such as health surveillance and PHC in the 1st Regional Health Management (I GERES) in the state of Pernambuco.

METHOD

A quantitative descriptive observational epidemiological study was carried out using the cross-sectional *survey* research method[8].

The data was obtained through the use of a self-explanatory questionnaire, delivered in printed form to senior health professionals who work in the area of health surveillance, containing closed and open questions[9], covering variables such as: type of employment in the current position, specialization and/or training courses and other activities developed in the workplace necessary for the qualification of these professionals to work in the SUS. The articulation between the Expanded Family Health Center (EFHC) and Primary Care (PHC) and Health Surveillance was verified by analyzing the answers provided to the following question: "Do you develop integrated activities with the EFHC-PHC/Health Surveillance?", the answer to which could be "yes" or "no".

To collect the data, we first contacted the manager of each municipality or health district (HD), explaining the main objectives and the importance of the research in question. Aware of this information, the manager and the entire team of professionals were invited to take part in the research. Subsequently, the manager passed on the invitation to the other professionals and scheduled a day and time with the team of researchers to meet with all the professionals interested in taking part in the study.

During the meeting, the research team handed out the Informed Consent Form (ICF), explained the importance and objectives of the research, explained that participation in the research was free and could be interrupted at any time without any cost, and handed out the questionnaire to the professionals. The team of researchers also made themselves available to answer any questions about filling in the questionnaire.

Due to the novel coronavirus pandemic, data collection in some municipalities was carried out using virtual *online* questionnaires through the Google *Forms* platform. Although these circumstances represented a limitation to the study methodology, the fact that the questionnaires are self-explanatory apparently did not make this limitation so significant, since they can be answered even in the absence of the research team.

Data collection in this study took place from August to December 2019 and in February, June, and July 2020, in seven of the eight HDs in the city of Recife and in 13 municipalities in the Recife Metropolitan Region (RMR) (Abreu e Lima, Araçoiaba, Cabo de Santo Agostinho, Camaragibe, Igarassu, Ipojuca, Ilha de Itamaracá, Itapissuma, Jaboatão dos Guararapes, Moreno, Olinda, Paulista and São Lourenço da Mata), as well as Chã Grande, Fernando de Noronha, Glória de Goitá and Pombos, which are part of the I GERES, despite not being located in the RMR. This research had the authorization of the Ethics Committee for Research with Human Beings, approved under Opinion No. 3.434.844, in accordance with National Health Council Resolution No. 466 of December 12, 2012.

It is worth noting that, although we are not aware of the total number of professionals invited in each HD or municipality, not all of those invited agreed to take part in this study or were present on the day of the meeting to fill in the questionnaires. Of all the Health Departments and municipalities invited, only the Health Surveillance Department of Recife HD IV and the municipality of Chã de Alegria did not take part in this study because they did not respond to attempts to contact them or because they chose not to take part.

The data collected was stored in Excel® and Numbers® spreadsheets. Based on this data, descriptive statistics were carried out, calculating relative and absolute frequencies, which were presented in tables according to the variables studied regarding the responses of health professionals, whose municipalities of origin were grouped into three categories: Recife, RMR and other municipalities (Chã Grande, Fernando de Noronha, Glória de Goitá, and Pombos).

RESULTS

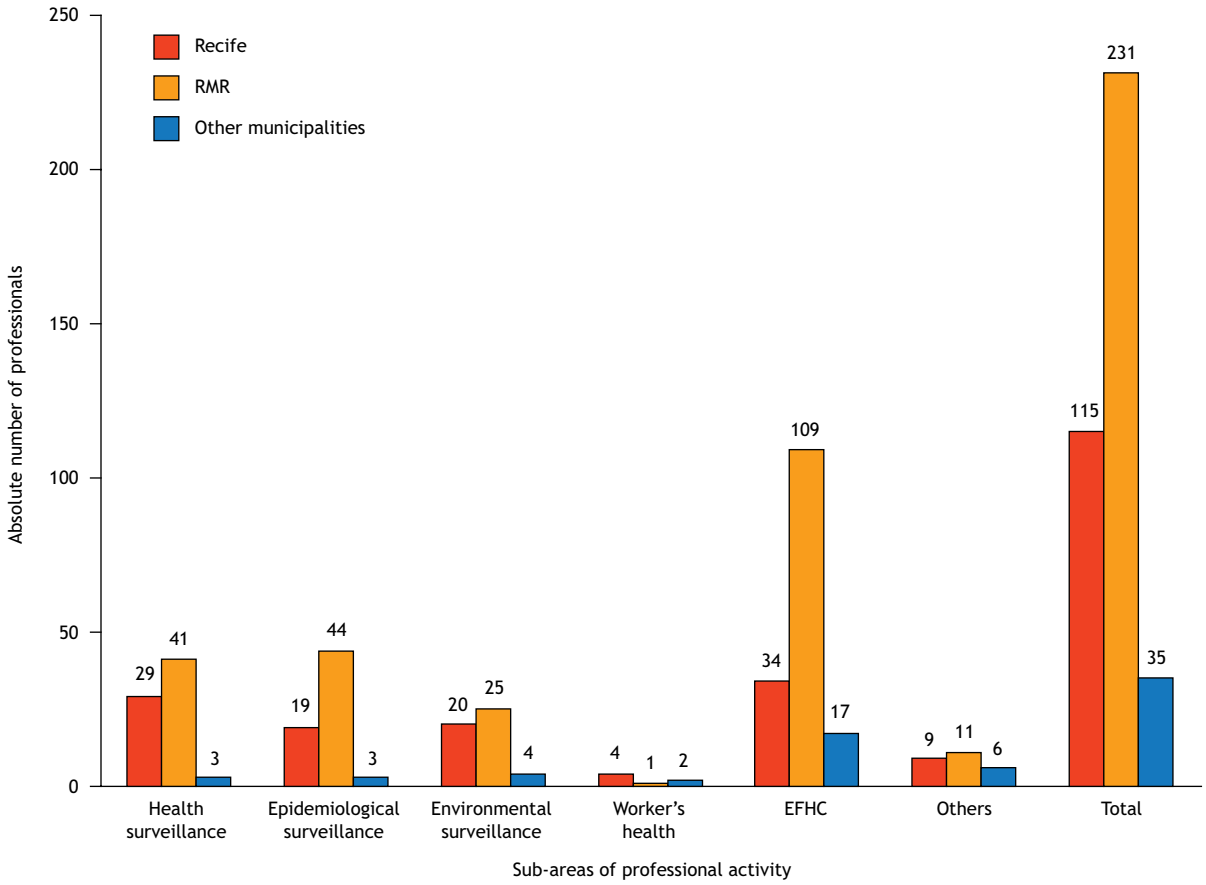
The study was concluded with the participation of 381 higher education professionals, of whom 30.18% (115/381) worked in the municipality of Recife, 60.62% (231/381) in the other municipalities of the RMR and 9.18% (35/381) in the other municipalities belonging to the I GERES.

As for the distribution of professionals, the areas of health surveillance, epidemiological surveillance, environmental surveillance, workers' health and the Expanded Family Health Center (EFHC) absorbed 19.16% (73/381); 17.32% (66/381); 12.86% (49/381); 1.84% (07/381), and 41.99% (160/381) of the professionals, respectively, while the remaining 6.82% (26/381) fell into the "Other" category, as described in the figure. It is also worth noting that within health surveillance, health surveillance was the area with the largest number of professionals.

As for the characteristics of their training, 90.36% (347/384) of the professionals had completed an undergraduate course in the health area (including veterinary medicine), 55.64% (212/381) had done so more than 10 years ago, and 59.79% (229/383) had done so at a public teaching institution, according to the data described in Table 1.

Still on the subject of training, 62.99% (240/381) of the professionals said they had an advanced course in public health, completed between 1 and 5 years ago by 31.50% (120/381) of them. 53.81% (205/381) of the professionals said they had a specialization course in public health, which had been completed between 1 and 5 years ago by 23.88% (91/381) of them. However, only 12.86% (49/381) said they had completed at least one master's or doctorate course, and 87.14% (332/381) of the remaining professionals said they had not. Of those who reported having done so, 8.14% (31/381) said they had completed it between 1 and 5 years ago, as shown in Table 2.

Regarding the characteristics and working conditions, the data in Table 3 shows that 50.39% (192/381) of the professionals entered their current position through a competitive examination. Working hours are between 31 and 40 hours a week for 49.87% (190/381) of them. 81.63% (311/381) of the participants said they did not have any other type of private activity, while 18.37%



Source: Prepared by the authors, 2022.
RMR: Metropolitan Region of Recife; EFHC: Expanded Family Health Center.

Figure. Absolute number (no.) of health professionals with higher education in the Health Surveillance sector and the Expanded Family Health Center (EFHC), by sub-area of activity in Recife, the Metropolitan Region of Recife (apart from Recife), and in the other municipalities of the 1st Regional Health Management (I GERES).

Table 1. Education characteristics of health professionals with higher education in Recife, the Recife Metropolitan Region (apart from Recife), and in the other municipalities of the 1st Regional Health Management (1st GERES) in absolute numbers (total number) and percentages (%).

Training characteristics	Health district				
	Recife	RMR	OM	total number	%
Time since graduation					
Completed less than 5 years ago	6	32	13	51	13,39
Completed between 5 and 10 years ago	27	80	11	118	30,97
Completed more than 10 years ago	82	119	11	212	55,64
Not informed	-	-	-	0	0,00
Total	115	231	35	381	100,00
Educational institution*					
Public institution	78	141	10	229	59,79
Private institution	36	88	26	150	39,16
Not informed	2	2	-	4	1,04
Total	116	231	36	383	100,00
Degree course*					
Veterinary medicine	13	36	5	54	14,06
Other health courses	82	181	30	293	76,30
Other courses in other areas	21	15	1	37	9,64
Not informed	-	-	-	0	0,00
Total	116	232	36	384	100,00

Source: Prepared by the authors, 2022.
RMR: Metropolitan Region of Recife; OM: Other municipalities.
* The total data exceeds the number of participants because some of them reported more than one degree course at more than one educational institution.

Table 2. Complementary training characteristics of health professionals with higher education in Recife, the Metropolitan Region of Recife (apart from Recife), and in the other municipalities of the I Regional Health Management (I GERES), in absolute numbers (total number) and percentage (%), as to whether or not they have taken courses in improvement, specialization, and master's or doctoral degrees in the area of public health and the respective time in which they were completed.

Complementary training characteristics	Recife	RMR	OM	Total number	%
Improvement course in public health					
Yes	70	153	17	240	62,99
No	45	78	17	140	36,75
Not informed	-	-	1	1	0,26
Total	115	231	35	381	100,00
Time taken to complete the advanced course					
Completed less than 1 year ago	21	49	8	78	20,47
Completed between 1 and 5 years ago	34	79	7	120	31,50
Completed more than 5 years ago	14	26	2	42	11,02
Does not have/not informed	45	78	18	141	37,01
Total	114	232	35	381	100,00
Specialization course in public health					
Yes	67	123	15	205	53,81
No	48	108	20	176	46,19
Not informed	-	-	-	0	0,00
Total	115	231	35	381	100,00
Time taken to complete the specialization course					
Completed less than 1 year ago	6	12	7	25	6,56
Completed between 1 and 5 years ago	22	65	4	91	23,88
Completed more than 5 years ago	39	46	4	89	23,36
Does not have/not informed	48	108	20	176	46,19
Total	115	231	35	381	100,00
Master's or doctoral degree in public health					
Yes	20	29	-	49	12,86
No	95	202	35	332	87,14
Not informed	-	-	-	0	0,00
Total	115	231	35	381	100,00
Time since completion of master's or doctoral course					
Completed less than 1 year ago	2	5	-	7	1,84
Completed between 1 and 5 years ago	14	17	-	31	8,14
Completed more than 5 years ago	4	7	-	11	2,89
Does not have/not informed	95	202	35	332	87,14
Total	115	231	35	381	100,00

Source: Prepared by the authors, 2022.
RMR: Metropolitan Region of Recife; OM: Other municipalities.

(70/381) said they did. Of these, 11.55% (44/381) reported using between 16 and 30 hours a week to carry out this type of private activity. 80.84% (308/381) reported not working in more than one municipality, while 18.64% (71/381) reported doing so.

About the characteristics of training, 97.11% (370/381) of the participants reported that they did so, with their own work institution being the environment used by 34.42% (275/799) of them, and distance learning being used by 28.16% (225/799) of them. In addition, 62.99% (240/381) of the professionals said they had completed their last training course less than a year ago.

Regarding the suggestions made by professionals to the I GERES for improving the quality of training in health care and PHC, both in Recife and in the RMR and other municipalities, 29.71% (52/175) of the responses mentioned or

Table 3. Characteristics of the employment relationship and other activities of health professionals with higher education in Recife, the Recife Metropolitan Region (apart from Recife), and in the other municipalities of the 1st Regional Health Management (1st GERES) in absolute numbers (total number) and percentages (%).

Work characteristics	Recife	RMR	OM	Total number	%
Type of link					
Contract	25	103	25	153	40,16
Tender	79	108	5	192	50,39
Others	11	19	5	35	9,19
Not informed	-	1	-	1	0,26
Total	115	231	35	381	100,00
Weekly workload					
Up to 15 hours per week	1	2	-	3	0,79
From 16 to 30 hours per week	51	128	7	186	48,82
From 31 to 40 hours a week	63	99	28	190	49,87
More than 40 hours a week	-	2	-	2	0,52
Total	115	231	35	381	100,00
Exercise of another particular activity					
Yes	18	46	6	70	18,37
No	97	185	29	311	81,63
Total	115	231	35	381	100,00
Weekly workload (in private activity)					
Up to 15 hours per week	6	15	2	23	6,04
From 16 to 30 hours per week	10	30	4	44	11,55%
More than 40 hours a week	2	1	-	3	0,79%
No other private activity	97	185	29	311	81,63%
Total	115	231	35	381	100,00%
Working in more than one municipality					
Yes	11	54	6	71	18,64%
No	104	175	29	308	80,84%
Not informed	-	2	-	2	0,52%
Total	115	231	35	381	100,00%

Source: Prepared by the authors, 2022.
RMR: Metropolitan Region of Recife; OM: Other municipalities.

requested the promotion of continuing and/or permanent education in health; 25.71% (45/175) pointed to the need for investment in integration between the sectors of the HCN; 14.86% (26/175) for more vacancies in training in general; 9.71% (17/175) for more meetings, debates and gatherings and, finally, 8.57% (15/175) requested training in the area of health surveillance, of which 66.66% (10/15) were in the area of health surveillance.

About integrated activities between the EFHC-PHC and health services, only 27.30% (104/381) of the professionals reported carrying out this type of integrative activity, while 71.65% (273/381) said they did not, and 1.05% (08/381) did not give any answer. Among those who said they carried out this type of activity, 22.11% (23/104), 65.38% (68/104) and 12.50% (13/104) belonged, respectively, to Recife, the RMR (with the exception of Recife) and the other municipalities. Among those who said they didn't carry out these integrated activities, 33.70% (92/273), 59.70% (163/273) and 06.59% (18/273) belonged to Recife, the RMR (with the exception of Recife) and the other municipalities, respectively. Finally, among the professionals who didn't give an answer, 100.00% (4/4) of them belonged to the group of other municipalities.

Regarding the suggestions made by professionals to the I GERES for improving the quality of training in health care and PHC, 23.42% (41/175) of the suggestions provided referred to demands for training. Some of the suggestions included in this theme are described below:

> That the I GERES should be more present for biannual planning meetings and continuing education with the professionals.

> Holding intersectoral forums, integration forums; investing in permanent education for managers and other professionals.
>
> Being closer to understanding and meeting the servers' need for updates.
>
> Nowadays, unfortunately, we know that these refresher courses take place but we often don't know what's going on and so we miss out on a valuable opportunity to gain knowledge.
>
> Continuing education courses, articulate partnerships with public and private institutions for training; discounts.
>
> Direct the courses of the School of Government in Public Health to the priorities defined by each municipality, integrated with Apevisa [Pernambuco Health Surveillance Agency].
>
> Create a permanent schedule of courses/training/capacity building, guaranteeing continuing education and improvement for all health inspectors.

Other suggestions confirm the existence of deficiencies in the integration between the EFHC-PHC and the HS:

> I suggest joint training sessions between surveillance technicians and EFHC-PHC professionals.
>
> Improve integration between the sectors [HS and EFHC-PHC] and increase the number of places made available to civil servants when courses are offered.
>
> The EFHC and surveillance coordinators could promote joint actions to bring health promotion and prevention closer together.
>
> Strengthening links between surveillance and the EFHC.
>
> Integration between EFHC and HS in the districts.
>
> Closer ties with the surveillances.
>
> There is no interface with the EFHC.

DISCUSSION

According to the results obtained in this survey, it was possible to see that there is a wide variation in the distribution of higher education professionals between the different areas of activity. This is partly due to the absence of some of them when the visit to their respective HD or municipalities was scheduled, the shortage of professionals in the sectors of some HD or municipalities, the lack of feedback from some teams and the choice not to take part in the survey, mainly because the second stage of the collection took place digitally, which may have contributed to a smaller number of participants in the study.

The data on the number of professionals working in the area of occupational health surveillance showed that only 1.84% (07/381) of professionals worked in the I GERES. In another study, carried out in the V GERES in the state of Pernambuco[6], 78.57% (11/14) of the municipalities did not have a structured occupational health surveillance service, and in the municipalities where the service was provided, there was no exclusive coordinator for management in the municipalities, a fact which the author justified as being due to the initial process of implementing occupational health surveillance in the region. However, whether it's due to the fact that this sector is still being set up in some municipalities and is consequently undergoing improvements in terms of the training of professionals and the provision of services, or due to a possible flaw in the structuring of the teams, there is clearly a need for investment on the part of human resources management in this important area of HS.

The National Workers' Health Policy, established by Ordinance No. 1,823 of August 23, 2012, establishes the following in Article 210:

> The National Workers' Health Policy aims to define the principles, guidelines, and strategies to be observed by the three spheres of management of the Unified Health System (SUS), for the development of comprehensive workers' health care, with an emphasis on surveillance, with a view to promoting and protecting workers' health and reducing morbidity and mortality resulting from development models and production processes.

Item VI of Art. 12 of this same ordinance establishes that it is the responsibility of the state directorate of the SUS to: "organize actions to promote, monitor and assist workers' health in the health regions [...]"[10]. In order to guarantee workers' rights to health, it is necessary for the coordination of the GERES in Pernambuco to re-evaluate the structuring of workers' health surveillance services, in order to identify the specific causes of the low number of professionals involved in this sector.

With regard to the characteristics of employment, 50.39% (192/381) of the professionals who took part in this study had permanent employment relationships with the service, i.e., they joined through a competitive examination, which was the case for only 31.81% (07/22) of the coordinators at the IV GERES in Pernambuco[11], and only 30.77% (08/26) of the coordinators at the V GERES in the same state[7]. This data allows us to infer that the policy of investing in competitions for health professionals in the state of Pernambuco is more relevant in the capital and the RMR (I GERES) than in the interior of the state, as observed in the IV GERES (Caruaru/PE)[11] and V GERES (Garanhuns/PE)[7].

Bastos et al.[12], in a study of health surveillance professionals in pharmacies in Salvador, reported that around 84.48% of those interviewed had entered the service through a public examination. However, Fernandes[5], in a survey of professionals from the health surveillance department of a municipality in the east-central region of Minas Gerais, analyzed the profile and perceptions of these professionals with regard to training and professional development, and found that only 34.50% (19/55) of those interviewed had permanent contracts. Given this, it is

clear that in some municipalities the percentage of professionals with non-permanent contracts is still high, interfering with the turnover of these professionals.

The high turnover of professionals has a negative impact on the quality of the services they provide to the community, because it causes discontinuity in the care provided, as well as damaging the dynamics of how activities are carried out and making it difficult for the team to work together, whose professionals are constantly being replaced by others. This problem evokes the importance of structuring the Career, Position, and Salary Plan within the SUS (PCCS-SUS)[13] in an attempt to combat the instability of professionals in their respective positions, in order to guarantee not only their continued permanence in the team, but also salaries and working conditions that discourage the formation of double jobs and ensure the legal rights of workers, in order to curb political interference in the structuring of the team[14].

Magnago and Pierantoni[15], when analyzing the perception of managers in the municipalities of Duque de Caxias and Rio de Janeiro regarding the turnover of professionals in the Family Health Strategy, observed that in Duque de Caxias there was a predominance of turnover in professionals with basic and technical schooling, especially community health agents (ACS), which was partially justified by the fact that these professionals were linked to the municipality through temporary contracts.

With regard to taking part in training courses, 97.11% (370/381) of health professionals in Recife (Pernambuco) and the other municipalities coordinated by the I GERES reported in this study that they take part in this type of activity, and the last training course was completed less than a year ago by 62.99% (240/381) of them; in Pernambuco's V GERES, 96.15% (25/26) of the participants used to take part in training courses, so that the last course was completed less than a year ago by 72.00% (18/25) of these professionals[6], while in the IV GERES, 81.81% (18/22) of the participants took part in training courses, while the last training course was completed less than a year ago by 66.66% (12/18) of them[11].

These data revealed the existence of investments in training by the I, IV and V GERES for professionals and reinforced the importance of the National Policy for Permanent Education in Health (NPPHE), which aims to transform professional practices and the organization of work itself[16]. In addition, 29.71% (52/175) of the suggestions made by the professionals who took part in this study were directed at Health Education (especially permanent/continuing health education), while 23.42% (41/175) of them referred to the quantitative and qualitative aspects of training, which reaffirms the need for the I GERES to continue offering continuing training to professionals.

Learning through technological resources is of great importance in professional updating. It democratizes access to knowledge and information, facilitates the formation of virtual communities, overcomes geographical barriers and the difficulty of accessing bibliographies, as well as encouraging the circulation of data and fostering debates[17,18].

With regard to the environment used by professionals to carry out training, the distance learning modality was used by 28.16% (225/799) of the higher education professionals from the I GERES and by 25.00% (09/36) of the coordinators from the IV GERES[11]. Considering that more professionals could benefit from this tool, it is suggested that the GERES strengthen distance learning models in order to integrate them into the development of in-service Continuing Education projects and to value problematization, which could bring the knowledge built closer to the teams' practices, corroborating the statements already described by other authors who emphasize the benefits of distance learning for health professionals[17,18].

In relation to the professionals' suggestions regarding training, state and municipal managers also felt the need to invest in the actions recommended in the NPPHE[16], established in 2004 as a SUS strategy for the training and development of its professionals and workers. These actions should be carried out to better articulate the integration between teaching, service and the community[19], as well as to ensure the regionalization of SUS management as a basis for developing qualified initiatives to understand and tackle the needs and difficulties related to the system[20]. These initiatives should aim to transform work practices, based on critical reflections, proposing a meeting between the world of training and the world of work, through the intersection between learning and teaching in the reality of the services, thus improving the provision of services to SUS users[21].

Regarding the integration between the EFHC-PHC and health surveillance, deficiencies were observed, which is at odds with the National Health Surveillance (NHSP)[1] and Primary Care (NPCP)[3] policies. Ordinance No. 2,436, of September 21, 2017, which approves the NPCP[3], considers, in its Article 5, that:

> Integration between Health Surveillance and Primary Care is an essential condition for achieving results that meet the population's health needs, from the perspective of comprehensive health care, and aims to establish work processes that take into account health determinants, risks and damages, from an intra- and intersectoral perspective.

In the same direction, Resolution No. 588 of July 12, 2018, which establishes the NHSP[1], defines the following guideline in its Article 8, item III:

> III - Building management and work practices that ensure comprehensive care, with the inclusion of health surveillance actions throughout the Health Care Network and especially in Primary Care, as the coordinator of care.

This same resolution establishes the following in Art. 12, item VII:

> Art. 12 It is the responsibility of the states, and the Health Secretariats, to manage health surveillance at state level, including:

VII - to organize health surveillance actions in the health regions, considering the different levels of complexity, with Primary Health Care as the coordinating center, defining, together with the municipalities, and in coordination with the Federal Government, the mechanisms and flows of reference, counter-reference, and matrix support, in addition to other measures, to ensure the development of health surveillance actions.

Thus, it is possible to see that both the NPCP and the NHSP have the principle of integration between health care and PHC[1,3] and, more than that, they consider this integration to be an indispensable condition for achieving results that meet the real health needs of the population. This study, however, revealed that 71.65% (273/381) of the professionals reported not developing integrated activities between these two areas, which highlights the need for more investment by state and municipal managers in integration practices between health promotion and primary healthcare.

In a study2[0] which analyzed the macro and micro-political aspects of the organization of work in the EFHC, it was found that the fragility of the network contributed to the fragmentation of care. Melo et al.[22] described how, due to the shortage of specialized services on offer, EFHC professionals are used to replace these services, in an attempt to fill a gap in the health network: an action that is far removed from the logic of matrix support. Thus, in order to guarantee effective and comprehensive care in PHC, it is necessary to offer specialized care through the HCN.

CONCLUSIONS

Analysis of the data obtained from this study allowed us to gain a better understanding of the weaknesses and potential inherent in the training and working conditions of health surveillance and PHC professionals. Among the main weaknesses were the small number of professionals allocated to occupational health surveillance and the lack of integration between health surveillance and PHC.

Although weaknesses were identified, potentialities were also described, such as the low turnover of professionals, given that most of them are permanent employees, and that practically all professionals usually undergo training, with most of them having completed their last training less than a year ago. Despite this positive fact, the fact that almost a quarter of the professionals' suggestions called for improvements in various aspects of the training offered reinforces the fact that this issue should continue to receive special attention from municipal and state health managers.

In this way, this study can contribute to managers both as a tool to help them assess the demands identified and to draw up intervention strategies that improve the conditions for qualified training of health professionals in the I GERES and improve the quality of the services provided to the population.

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Authors' Contribution

Lima LRA, Almeida WNM, Brandespim DF - Conception, planning (study design), acquisition, analysis, data interpretation, and writing of the work. All the authors approved the final version of the work.

Conflict of Interest

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