



# Social Security Benefits: analysis of sick leaves in Brazil due to voice disorders

## Benefícios Previdenciários: análise de afastamentos no Brasil decorrentes do distúrbio de voz

## Beneficios de la seguridad social: análisis de la licencia en Brasil, producto de trastornos de la voz

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### Abstract

**Introduction:** the Brazilian worker, in the presence of illness, can use different types of social security benefits to protect resources for him and his family. **Objective:** to describe the granting of social security benefits to policyholders who leave work due to voice and laryngeal disorders in Brazil. **Methods:** survey of secondary data (Single Benefit Information System), referring to sick leave from 2009 to 2017. ICD-10 was considered: C32 - Malignant neoplasm of the larynx; J04 - Acute laryngitis and tracheitis; J37 - Chronic laryngitis and laryngotracheitis; J38 - Disease of the vocal cords and larynx not elsewhere classified - and R49 - Voice disorders. Benefits: B31- Pension sickness benefit, B32- Retirement due to social security disability, B91- Accident sickness allowance, B92- Retirement due to accidental disability. Gender, age groups and ICD-10 variables were considered. **Results:** Women (59.6%), aged between 31 and 55 years (58.4%) and CID C32 and J38 (68.8%) were more frequent. Among the benefits, B31

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### Author's contributions

LPF, HYN and ACC: Study Design; Methodology; Manuscript Design; Critical revision.

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**Received:** Dec 16, 2020

**Accepted:** May 26, 2021



(78.7%) and B32 (10.5%) were the most granted. **Conclusion:** there was a predominance of the granting of social security benefits (B31) due to common illness in the age group between 31 and 55 years old. Women distance themselves predominantly with ICD J38.2 and R49, and men with ICD C32.

**Keywords:** Occupational health; Laryngeal Diseases; Sick Leave, Voice Disorders.

## Resumo

**Introdução:** o trabalhador brasileiro, quando adoece, pode recorrer a diferentes tipos de auxílios nas previdências pública e privada para garantir recursos para ele e sua família. **Objetivo:** descrever a concessão de benefícios previdenciários aos segurados que se afastam do trabalho por distúrbio de voz e de laringe no Brasil. **Métodos:** levantamento de dados secundários (Sistema Único de Informações de Benefícios), referentes aos afastamentos no período de 2009 a 2017. Foram considerados os CID-10: C32 - Neoplasia maligna da laringe; J04 - Laringite e traqueíte agudas; J37 - Laringite e laringotraqueíte crônicas; J38 - Doença das cordas vocais e da laringe não classificadas em outra parte - e R49 - Distúrbios da voz. Benefícios: B31- Auxílio-doença previdenciário, B32- Aposentadoria por invalidez previdenciária, B91- Auxílio-doença acidentário, B92- Aposentadoria por invalidez acidentária. Foram consideradas as variáveis: sexo, faixa etária e CID-10. **Resultados:** mulheres (59,6%), faixa etária entre 31 a 55 anos (58,4%) e CID C32 e J38 (68,8%) foram mais frequentes. Dentre os benefícios, o B31 (78,7%) e B32 (10,5%) foram os mais concedidos. **Conclusão:** observou-se predominância da concessão dos benefícios previdenciários (B31) por doença comum, na faixa etária entre 31 a 55 anos. As mulheres afastam-se predominantemente com os CID J38.2 e R49, e homens pelo CID C32.

**Palavras-chave:** Saúde do Trabalhador; Doenças da Laringe; Licença Médica; **Distúrbios da Voz.**

## Resumen

**Introducción:** el trabajador brasileño, en presencia de enfermedad, puede utilizar diferentes tipos de prestaciones de seguridad social para proteger los recursos para él y su familia. **Objetivo:** describir el otorgamiento de prestaciones de seguridad social a asegurados que dejan el trabajo por trastornos de la voz y laringe en Brasil. **Métodos:** encuesta de datos secundarios (Sistema Único de Información de Beneficio), referido a la baja laboral de 2009 a 2017. Se consideraron CIE-10: C32 - Neoplasia maligna de laringe; J04 - Laringitis y traqueítis agudas; J37 - Laringitis y laringotraqueítis crónica; J38 - Enfermedad de las cuerdas vocales y laringe no clasificada en otra parte - y R49 - Trastornos de la voz. Prestaciones: B31- Pensión por enfermedad, B32- Jubilación por invalidez de la seguridad social, B91- Subsidio por accidente, B92- Jubilación por invalidez accidental. Se consideraron las variables sexo, grupo de edad y CIE-10. **Resultados:** las mujeres (59,6%), con edades comprendidas entre 31 a 55 años (58,4%) y CID C32 y J38 (68,8%) fueron más frecuentes. Entre los beneficios, B31 (78,7%) y B32 (10,5%) fueron los más otorgados. **Conclusión:** predominó el otorgamiento de prestaciones de seguridad social (B31) por enfermedad común, en el grupo de edad entre 31 y 55 años. Las mujeres se distancian predominantemente con ICD J38.2 y R49, y los hombres con ICD C32.

**Palabras clave:** Salud Laboral; Enfermedades de la Laringe; Ausencia por Enfermedad; Trastornos de la Voz.

## Introduction

During working life, workers may have their health compromised by an illness that may be independent or resulting from the work they perform. Thus, the same work can qualify, produce, modify, and cause illnesses and/or accidents with temporary or permanent consequences for individuals.

When workers perform their work under adverse health conditions, accidents may occur, which can lead to bodily injury, or temporary or permanent occupational disorder and/or worsening of pre-existing illnesses, or the development of a work-related illness (WRI)<sup>1</sup>.

In cases where they need a leave from work to recover and/or re-adapt to their position, workers can resort to the public social security or private pension systems to which they are associated in order to guarantee the income to support themselves and their families.

There are currently two Social Security Systems in Brazil: Private pension funds and the Public Social Security. Private Pension is a complementary and optional insurance system, of a contractual nature, whose purpose is to provide workers with additional income, during inactivity, and is administered by open for-profit entities (Banks and Insurance Companies) or by closed non-profit entities (Pension Funds). The Public Social Security System, since the promulgation of the Federal Constitution, in 1988, is considered as Social Direct, Art. 6, of federal, state and municipal legislation. The Constitutional Charter also includes health and work as social rights. It is characterized by being maintained by a public entity, having an institutional nature and being mandatory. It is intended for all workers who perform paid activities<sup>2</sup>.

Social Security can adopt two regimes: Proper Social Security Regime (RPPS), which is guaranteed exclusively to public servants holding effective positions, maintained by public entities of the Federation (Federal, State, Municipal governments, and the Federal District) and General Social Security Regime (RGPS), intended for workers regulated by the Consolidation of Labor Laws (CLT), which are private sector workers and public servants not affiliated to the RPPS and is managed by the National Institute of Social Security – INSS<sup>2</sup>.

Social Security benefits cover retirements (age, disability, contribution time, special), ben-

efits (sickness, accident, imprisonment), pensions (death, special) and allowances (maternity and family) in addition to social assistance through the granting of the continuous cash benefit (BPC) program<sup>2</sup>.

In case of accident or illness that impairs or prevents them from performing their function at work, policyholders associated with the RGPS may request a leave from the INSS legal medical experts team and the expert physician will be responsible for determining the degree of disability (partial or total), the length of leave, the type of benefit, in addition to establishing the causal link when dealing with a possible work-related illness, according to the International Classification of Diseases (ICD)<sup>2</sup>.

If, after the period of leave, the worker still remains partially or totally disabled, the INSS expert physician may refer the worker to the “Professional Rehabilitation” service, which aims to provide educational and professional re-adaptation assistance for the return to work in a new function/activity. If the sequela is permanent, which reduces the ability to work, the worker may claim compensation that is paid by the accident aid benefit, regardless of whether they continue working or not<sup>2</sup>.

The benefit granted for temporary leave is the social security illness benefit (B31) or accident illness benefit (B91); and the benefit for permanent leave is the social security retirement (B32) or accident retirement (B92). By definition, social security illness benefit (B31) is a benefit granted to policyholders unable to work due to illness or accident for more than 15 consecutive days. For self-employed, rural and domestic work policyholders, Social Security covers expenses from the first day of disability for work. It is necessary to consider the contribution time for the worker to be insured. It should be noted that this type of benefit can be granted for any type of illness that causes workers to leave their activities, as they are temporarily disabled for work<sup>2</sup>.

If the disability is work-related, recognized by the INSS, workers are entitled to the accident illness benefit (B91). The major difference between the benefits lies in the recognition of the illness having been caused by the work and in the establishment of the causal connection, since the company must maintain the payment of the length-of-service guarantee fund (FGTS) while the worker is on leave. Upon returning to work, workers are ensured job stability for one year<sup>2</sup>.

In addition to receiving benefits in case disability for work is determined, there is also the possibility of social security disability retirement (B32) or accident disability retirement (B92). In the latter cases, it is considered that the worker cannot be rehabilitated to return to their activities.

A retrospective quantitative study found, for the period from 2005 to 2009, 369 illness benefits granted by the Fortaleza Management, due to ICDs related to laryngeal disorders. Of these, 91% had been granted to women and 88.8% to voice professionals, with a predominance of teachers (59.1%) and telemarketers (24.7%). The most prevalent diagnoses were: nodules (46.6%), laryngopharyngeal reflux (27.1%), functional dysphonia (11.7%), cyst (7.9%), sulcus (6.5%) and polyp (6.5%). The time of leave ranged from 17 to 1365 days, with an average of 150.6 days. In 17.1% of cases a causal connection was recognized and 13% were rehabilitated<sup>3</sup>.

The high number of sick and/or injured individuals generates costs for the social security system in Brazil and other countries, with loss of years of life. A study carried out in Colombia found that teachers with voice-related complaints spend, on average, 37% of their salary on either direct or indirect health expenses. The data showed that the greater the vocal problem, the greater the frequency of absenteeism and the greater the use of the health system<sup>4</sup>. In Brazil, there is also great impact caused by leaves<sup>5</sup>.

This study aimed to describe the profile of leave and retirement benefits granted by Social Security (INSS) to workers who presented disabilities caused by voice and laryngeal disorders, with special attention to those considered to be work-related.

## Method

This is a retrospective and descriptive study, carried out using secondary databases of the Unified Benefit Information System (SUIBE), which contains records of benefits granted by Social Security.

Data were analyzed after request to the Social Security Department of the Ministry of Finance and provided by the Workers' Health Directorate

(DIRSAT/INSS). Thus, the study was exempted from submission to the Research Ethics Committee.

All records made between January 2009 and November 2017 were considered for analysis. As these are INSS data, individuals who contribute to Social Security, whether registered as CLT or self-employed workers, are included in the survey. The variables considered for analysis were: sex, age, ICD-10, and type of benefit granted.

With regard to ICD-10, the following were considered: C32 - Malignant larynx neoplasm; J04 - Acute laryngitis and tracheitis; J37 - Chronic laryngitis and laryngotracheitis; J38 - Disease of the vocal cords and larynx not elsewhere classified (including extended analysis of J38.2 which refers to vocal cord nodules); and R49 - Voice disorders. As for the granting of benefits, we analyzed social security illness benefit (B31), social security disability retirement (B32), accident illness benefit (B91) and accident disability retirement (B92).

Data were described using absolute and relative frequency, considering each variable under study.

## Results

Table 1 presents the sociodemographic and ICD-10 data related to each type of granted benefit analyzed.

The data show that women are the majority (59.6%) to receive the benefits analyzed and the age group of 31–55 years has the highest frequency of leave in the period analyzed (58.4%).

The ICDs used to grant benefits show that most of them are granted to workers with health problems such as malignant laryngeal neoplasms (C32) (34.9%) and vocal cord and laryngeal disease not classified elsewhere (J38) (34%). On the other hand, ICD R49, which is specific to the WRVD protocol and which classifies the disorder presented as voice disorder, is the third largest factor in the leave of these workers, with a record of 20.2%.

Among the benefits analyzed, the most granted in the period was B31, social security illness benefit, with 78.8%. Regarding disability retirement, social security (B32) was the most granted with 10.5%.

Regarding the accident illness benefit (B91), considering the ICDs analyzed, 3782 benefits were granted, with a frequency of 10.4%.

**Table 1.** Type of aid benefit granted according to sex, age group and ICD in Brazil from January 2009 to November 2017.

	Types of Benefits									
	B31		B91		B32		B92		Total	
	n	%	n	%	n	%	n	%	n	%
<b>SEX</b>										
Female	17,394	60.9	3,426	90.5	496	13	24	33.9	21,340	59.6
Male	11,192	39.1	356	9.5	3,346	87	47	66.1	14,941	40.4
<b>AGE GROUP</b>										
<18	8	0.02	4	0.01	0	0	0	0	12	0.03
18-25	2,332	8	477	12.6	8	0.02	0	0	2,817	7.8
26-30	2,863	10	511	13.5	19	0.04	0	0	3,393	9.4
31-40	6,934	24.2	1,458	38.5	92	2.4	6	8.4	8,490	23.4
41-45	3,326	11.9	543	14.3	162	4.2	3	4.2	4,034	11.1
46-50	3,556	12.4	457	12	350	9.1	12	16.9	4,375	12.1
51-55	3,451	12	197	5.2	650	17	6	8.4	4,304	11.9
56-60	2,859	10	91	2.4	708	18.7	4	5.6	3,662	10.1
61-65	1,399	4.9	17	0.04	399	10.4	2	2.8	1,817	5.0
>66	155	0.5	5	0.01	46	1.1	0	0	206	0.6
No information	1,703	6	22	0.05	1,408	37	38	53.5	3,171	8.7
<b>CID</b>										
C32	8,996	31.4	102	2.6	3,526	91.7	39	54.9	12,663	34.9
J04	1,235	4.3	121	3.1	11	0.02	0	0	1,367	3.8
J37	2,081	7.2	451	11.9	41	1	3	4.2	2,576	7.1
J38	9,947	34.7	2,125	56.1	223	5.8	24	33.8	12,319	34
R49	6,327	22.1	983	25.9	41	1	5	7	7,356	20.2
OVERALL TOTAL	28,586	100	3,782	100	3,842	100	71	100	36,281	100

Caption:  
n: absolute frequency  
%: relative frequency  
B31: Social security illness benefit  
B91: Accident illness benefit  
B32: Social security disability retirement  
B92: Accident disability retirement  
C32: Laryngeal malignant neoplasm  
J04: Acute laryngitis and tracheitis  
J37: Chronic laryngitis and laryngotracheitis  
J38: Vocal cord and laryngeal disease not elsewhere classified  
R49: Voice disorders  
Source: SUIBE on December 23, 2017

Table 2 shows the data regarding the granting of benefits with ICD R49 (Voice disorders), C32 (Malignant laryngeal neoplasm) and specifically

ICD J38.2 (Vocal cord nodule) considering the sex variable. There is higher prevalence of R49 and J38.2 among women, and of C32 among men.

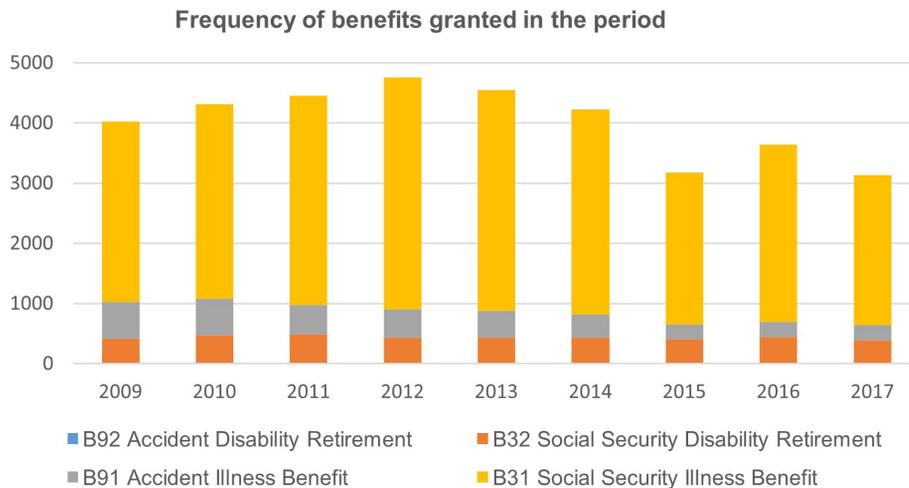
**Table 2.** Distribution of benefit grants using ICD R49, C32 and J38.2 according to sex.

ICD/Sex/Benefits		B31	B91	B32	B92
R49	Female	5,673	921	31	5
	Male	654	62	10	0
	n (%)	6,327 (86)	983 (13.4)	41 (0.6)	5 (0.006)
C32	Female	891	9	297	1
	Male	8,105	93	3,229	38
	n (%)	8,996 (71)	102 (0.8)	3,526 (27.8)	39 (0.3)
J38.2	Female	2963	930	12	3
	Male	278	36	2	0
	n (%)	3,241 (76.7)	966 (22.8)	14 (0.3)	3 (0.07)
Total		18564	2051	3581	47

Caption:  
 n: absolute frequency  
 %: relative frequency  
 B31: Social security illness benefit  
 B32: Social security disability retirement  
 B91: Accident illness benefit  
 B92: Accident disability retirement  
 C32: Laryngeal malignant neoplasm  
 J04: Acute laryngitis and tracheitis  
 J37: Chronic laryngitis and laryngotracheitis  
 J38: Vocal cord and laryngeal disease not elsewhere classified  
 R49: Voice disorders  
 Source: SUIBE on December 23, 2017

Figure 1 shows the frequency of benefits granted in the period, considering year by year, in the analyzed selection. The data show that B31 (social security illness benefit) was the most granted benefit, with a peak in 2012. The granting of this benefit does not imply the deposit of the Length-of-Service Guarantee Fund (FGTS), nor stability for

one year, unlike what occurs when the employee is on leave for benefit B91 (accident illness benefit). It is also possible to note that all benefits had a reduction in the granting from 2013, with a slight increase in 2016. Due to the reduced number of B92 benefit grants (less than 15) over the years, the value is not shown in the graph.



**Figure 1.** Frequency of benefits granted by INSS in Brazil from January 2009 to November 2017.

## Discussion

Before discussing the data analyzed, it is important to highlight that after a period of reflection and discussions<sup>6</sup>, in 2018, the Work-Related Voice Disorder (WRVD) Protocol was published by the Ministry of Health<sup>7</sup>. Thus, all data analyzed in this study are prior to the WRVD approval period. The protocol aims to “guide professionals in the Unified Health System network (Health Surveillance, Primary Care, medium and high complexity), private services, corporate health services and Specialized Occupational Safety and Medicine Services (SESMT) to trace, notify and support surveillance actions in cases of WRVD and its determinants” in any type of relationship of employment or of worker inclusion in the labor market. The risk factors for the development of a WRVD are related to the characteristics and organization of work, the work environment or related to the individual. The repercussions of WRVD on professional activity are varied and include, in addition to the vocal impact, emotional and socioeconomic effects<sup>8</sup>.

As in the case of the Ministry of Health, which recognized WRVDs as an occupational health problem, Social Security is expected to do the same and include them in the list of Professional and Occupational Diseases. Thus far, in the social security legislation, the only Work-Related Respiratory System diseases listed in Annex II of Decree 6,957 of 2009 that can lead to a voice disorder are (acute or chronic) pharyngitis and laryngotracheitis caused by exposure to bromine and iodine<sup>9</sup>.

However, in cases where the disease is not included in the provided list, Social Security can, exceptionally, establish the causal connection and consider the disease as a labor accident when the disease results from the special conditions in which the work is performed and is directly related to it<sup>2</sup>.

Starting April 2007, the causal connection is also established by the Epidemiologic Technical Nexus (NTEP), which relates certain diseases (ICD) to the main economic activities that occur with the highest statistical incidence in the National Classification of Economic Activities (CNAE)<sup>10</sup> regardless of the issuance of work accident report (CAT). To date, the NTEP for voice disorders is not planned, as the related ICDs and CNAEs are not covered. Thus, it is not yet possible to establish the causal connection of WRVD by NTEP.

It is important for workers and for society to characterize the connection of Voice Disorders with work when this is valid, since, when the causal connection with the work activity is established, the worker can enjoy labor rights. In addition, the recognition of WRVDs will lead to the possibility of notifications, which will enable knowing the extent of the issue, the categories involved and the information generated can support the development of public policies.

The conditions of vocal production, in the work context, for most professionals called voice professionals (teachers, teleoperators, singers, actors, announcers, among others) are inadequate. Specifically, in the case of teachers, infrastructure problems (type of classroom, blackboard, noise, luminescence, temperature), organization and relationships at work, number of students in the classroom and relationships between students can compromise the vocal and mental health of this professional<sup>11,12</sup>. This causes that many of these workers, over time, present voice disorder characterized by different symptoms, such as tiredness when speaking, hoarseness, effort to speak, voice failure, among others<sup>7</sup> and end up needing a leave from work or re-adaptation for another function.

Due to anatomical and physiological factors<sup>8</sup>, the initial hypothesis of this research was confirmed, with the finding of the predominance of females in the granting of benefits referring to ICD hypothetically related to vocal use, which corroborates the findings in a survey conducted in the period from 2005 to 2009<sup>3</sup>. On the other hand, males presented the majority of benefits when ICD C32 was analyzed, which is related to malignant conditions of the larynx, such as laryngeal cancer, more frequent in men.

The data related to the age group of the benefited subjects showed that the group with people aged 31–55 years reached a total of 58.4% of leaves. A portion of this age group falls into the group considered by the literature as performing their maximum vocal efficiency<sup>8</sup>; however, the large number of leaves observed shows that this is not enough to minimize the risks to vocal health arising from the professional practice of these individuals. In addition to the early occurrence of this issue, the resulting disability for work can impact the labor life of the worker, who is in an economically active period.

The recorded data regarding sex and age group presented alert health professionals towards the construction of flows focusing on these two variables in asking the occupation and/or profession performed by the subject and in establishing the health-disease-care relationship having as reference work as an important determinant.

This analysis considered the survey of ICDs related to various laryngeal conditions, including an organic condition (laryngeal carcinoma) that can have a direct effect on the voice, without a direct relationship with vocal use. It should be noted that the definition of WRVD contained in the Ministry of Health protocol as “any form of voice disorder related to professional activity that reduces, compromises or prevents the worker’s activity or communication, with or without organic change in the larynx” includes workers who, even without having their voice as a work tool, may be subjected to environmental risk factors that determine pathologies such as laryngeal cancer<sup>7</sup>.

On the other hand, ICD R49, which identifies voice disorder and which should be used in case of WRVD, is the third most prevalent diagnosis that caused leave and is directly related to vocal use in a professional context. The appearance of vocal disorders in different professional classes is widely reported in the literature. Epidemiological research showed a higher occurrence of vocal problems in teachers at some point in their lives, compared to non-teachers<sup>13</sup>. Other professional categories also present a high prevalence of symptoms, such as telemarketers who are 2.1 times more likely<sup>16</sup>, actors<sup>17</sup>, singers<sup>18</sup> and even health agents<sup>19</sup>.

The analysis of type of benefit granted shows that B31, social security illness benefit, related to common illness, is the most frequent in the period. This result shows that, although conditions related to vocal production cause workers to need a leave, this leave is not seen as being determined by work.

An example of this was found in the analysis of leaves due to ICD J38.2 (vocal cords nodule). Vocal nodule is one of the main organic lesions resulting from intense vocal use in inadequate production conditions<sup>3</sup>, which is why it is very common among professionals who use their voice as a work tool. There were 4,231 leaves from work due to CID J38.2, 92.5% of which of females. Leaves due to B31 (social security illness benefit) were 3.3 times higher than leaves due to B91 (accident illness benefit), which is related to illness

due to work, indicating probable underreporting of WRVDs. Possible explanations for this reality, in which the worker leaves, but without the accident benefit, may be due to lack of knowledge and/or guidance by society (health professional, worker and employer) regarding the possibility and importance of issuing the CAT, fear of the worker as to generating costs for the employer, since the employer is required to deposit the required amount of the length-of-service guarantee fund while the worker is on leave and ensure job stability for one year, insecurity about a possible loss of employment at the end of stability and lack of recognition of the relationship between the voice disorder and the work by the INSS medical legal expert. In relation to this last possibility, it is not yet possible to determine the extent to which the publication of the WRVD Protocol by the Ministry of Health in 2018 will contribute to the recognition of vocal disorders resulting from work activity.

In addition, there are workers who contribute individually to the INSS (self-employed workers, entrepreneurs and voluntary workers) who do not have work accident coverage; therefore, even on leave due to a work-related voice disorder, the accident causal connection will not be granted. A large group of voice professionals, such as teachers with another social security system, are not included in this analysis.

Certainly, the total number of benefit grants registered in the social security system (INSS) and presented in this article is much lower than the real number of illnesses resulting from voice disorder. The illness benefit is only requested when the medical certificate is longer than 15 days, a period in which there may be improvement in symptoms for many workers with milder conditions. Therefore, it is understood that those who are on leave by social security present more severe and chronic vocal and laryngeal disorders<sup>3</sup>. Several workers, despite the disability for work, prefer not to leave to avoid loss of labor benefits and/or a possible dismissal after returning to work, as well as the delay in getting the expert appointment scheduled and receiving Social Security payment. Research with teachers<sup>18</sup> showed that they postpone the report of a vocal problem and undervalue the symptoms presented. According to the authors, this occurs as a result of the institutional model, which curbs absenteeism, and the medical model, which leads the individual

to think that there is an individual process in the fact of being ill.

Data referring to occupational diseases can be consulted in the Social Security and Ministry of Health databases. In Social Security, information on WRVD-related leaves refer to the payment of disability benefits to policyholders. In the Ministry of Health, as notification for this issue is not yet covered, there is a lack of information.

However, some state and municipal health departments that showed interest in these data developed their own flow of WRVD notification.

The ideal scenario, with actions to promote health, adequacy of the environment, work process and organization, and prevention of damage to the vocal health of workers can reduce this type of leave.

It is expected that, with the determination of the relation between the presence of voice disorder and work activity and the notification of cases by health professionals, the B91 benefit – related to illness due to the work context – will increase proportionally, highlighting a disorder that is prevalent in voice professionals in Brazil and worldwide<sup>19</sup>.

Thus, the emphasis on the occurrence of WRVD, underscoring the health-work relationship, should expand the planning of care and recovery actions, individually and also the proposition of collective actions that foster the *promotion, prevention, surveillance of environments*, and the understanding of working activities and processes<sup>20</sup>.

It is worth noting the limitation of this study: it was not possible to access data on the occupation and/or profession of the subjects who obtained the benefits analyzed, since there was no access to this information, which would enable a more in-depth analysis relating the professional use of the voice and the incidence of leaves. However, as explained above, the presence of WRVD is not restricted to professions that have the use of voice as essential, which minimizes the limitations of this study.

## Conclusion

Based on the data analyzed, we observed the predominance of the granting of social security benefits (B31) due to common illness in the age group of 31–55 years. Women were on leave predominantly with ICD J38.2 and R49, and men with ICD C32.

As with all Occupational Health issues, WRVDs are preventable and, therefore, the data surveyed are important to determine the social and economic impact and the need for public policies for assistance, notification, prevention and surveillance in work environments.

Access to INSS data on leaves due to voice and larynx disorders, although representing only a selection of workers who have a CLT contract, enables reflection on the scarcity of official data on work-related voice disorders, which could be improved with an efficient information system, which would provide visibility to WRVDs, as well as garner the commitment and involvement of health professionals in their recognition.

It is important to emphasize that the training of health professionals, in the therapeutic approach to workers with voice disorder, contributes to improve the visibility of the problem, which, in turn, enables interventions in order to reduce the aggravating factors in the work environment.

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