# Work-Related Voice Disorder (WRVD): Achievements and Challenges in Latin America

Distúrbio de Voz Relacionado ao Trabalho: conquistas e desafios na América Latina

# Disturbio de la Voz Relacionado al Trabajo (DVRT): conquistas y desafíos en la América Latina

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LPF: study design, methodology, data collection, study outline and critical review; MCMBM: data collection, study outline and critical review; FNFS: data collection, study outline and critical review; LCCC: data collection, study outline and critical review; MFPDC: data collection, study outline and critical review; MCD: data collection, study outline and critical review; MLVM: data collection, study outline and critical review; MM: data collection, study outline and critical review; MHV: data collection, study outline and critical review; MAAS: data collection, study outline and critical review.

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#### Abstract

**Introduction:** the Work-Related Voice Disorder Seminar: achievements and challenges in Latin America was held and the participants videos and slides were applied with the aim of understanding the achievements and challenges in recognizing work-related voice disorder (DVRT)) in the guest countries (Argentina, Chile, Colombia, Peru, Venezuela and Brazil). **Description**: categories of analysis were identified, considering, in addition to the challenges and achievements, the existing legislation in each of the countries represented at the event. All countries identified the teacher's voice as representative of occupational diseases, also considering similarities in the environment and organization of the context of teaching work when comparing Brazil with other Latin American countries. The legislation, in most of them, is still ineffective. The speech therapist is the essential professional for planning and executing actions. Assistance to workers with DVRT in different countries is the responsibility of public or private institutions, mostly linked to the Ministry of Health. **Final considerations**: the similarities and differences found show the need for greater exchange of experiences between Latin American countries, with the aim of promoting the creation of a permanent forum for discussion and planning of multicenter research. Other countries should be invited to join this movement.

**Keywords:** Faculty; Voice Disorders; Surveillance of the Workers Health; Occupational Voice; Labor Legislation; Risk Factors

#### Resumo

**Introdução:** houve a realização do Seminário Distúrbio de Voz Relacionado ao Trabalho: conquistas e desafíos na América Latina e os vídeos e *slides* dos participantes foram analisados com o objetivo de conhecer as conquistas e desafíos para o reconhecimento do distúrbio da voz relacionado ao trabalho (DVRT) nos países convidados (Argentina, Chile, Colômbia, Peru, Venezuela e Brasil). **Descrição:** foram identificadas categorias de análise, levando em consideração além dos desafios e conquistas, as legislações existentes em cada um dos países representados no evento. Todos os países identificaram a voz do professor como representativa das doenças profissionais, considerando, ainda, semelhanças no ambiente e na organização do contexto do trabalho docente ao comparar o Brasil com outros países latino-americanos. A legislação, na maioria deles, ainda é ineficaz. O fonoaudiólogo é o profissional essencial para planejar e executar ações. A assistência aos trabalhadores com DVRT nos diferentes países é de responsabilidade de instituições públicas ou privadas, em sua maioria vinculadas ao Ministério da Saúde. **Considerações finais**: as semelhanças e diferenças encontradas mostram a necessidade de maior troca de experiências entre os países latino-americanos, com o objetivo de promover a criação de um fórum permanente de discussão e planejamento de pesquisas multicêntricas. Outros países devem ser convidados a aderir a este movimento.

**Palavras-chave:** Docentes; Distúrbios de Voz; Vigilância da Saúde do Trabalhador; Saúde Ocupacional; Legislação trabalhista; Fatores de risco

#### Resumen

**Introducción:** aquí se presenta el Seminario Trastorno de la Voz Laboral: Logros y Desafíos en América Latina y se analizan los videos y diapositivas de los participantes con el objetivo de comprender los logros y desafíos para la reconfirmación del trastorno de la voz laboral (DVRT), entre los países invitados (Argentina, Chile, Colombia, Perú, Venezuela y Brasil). **Descripción**: se identificaron categorías de análisis, teniendo en cuenta tanto los desafíos como los logros, de acuerdo con la legislación vigente en cada uno de los dos países representados en el evento. Todos los países identificarán la voz docente como representativa de la educación profesional, considerando las similitudes en el entorno y la organización del contexto del trabajo docente a comparar Brasil con otros países latinoamericanos. La legislación, en la mayoría de los casos, sigue siendo ineficaz. El logopeda es el profesional imprescindible para planificar y ejecutar acciones. La atención a los trabajadores con DVRT en diferentes países es



responsabilidad de instituciones públicas o privadas, en su mayoría vinculadas al Ministerio de Salud. **Consideraciones finales**: las similitudes y diferencias encontradas muestran la necesidad de un mayor intercambio de experiencias entre los países latinoamericanos, con el objetivo de promover la creación de un foro permanente de discusión y planificación de investigaciones multicéntricas. Se debería invitar a otros países a unirse a este movimiento.

**Palabras clave:** Docentes; Trastornos de la Voz; Vigilancia de la Salud del Trabajador; Salud Laboral; Legislación laboral; Factores de riesgo

# Introduction

On April 12th and 13th, 2022, after 25 years since the beginning of discussions regarding the recognition of work-related voice disorders1 and four years after the publication of the Protocol known as WVD - Work-Related Voice Disorder by the Ministry of Health<sup>2</sup>, an event titled Work-Related Voice Disorder (WVD): achievements and challenges (https://www.pucsp.br/laborvox/ dvrt.html) was organized by the Voice Laboratory (LaborVox) of the Pontificia Universidade Católica de São Paulo (PUC-SP), in celebration of World Voice Day. The event also commemorated the 60 years since the creation of the Speech Therapy Course, 50 years of the Graduate Program, and 35 years of the Communication Disorders Journal of PUC-SP.

The WVD protocol in Brazil was published following a movement supported by research conducted with various voice professionals (mainly teachers and call center operators). It was found that the work of these professionals under adverse environmental and work organization conditions leads to the occurrence of voice disorders. The protocol aims to "guide SUS network professionals (Health Surveillance, Basic Care, Medium and High Complexity), private services, corporate health services, and Specialized Services in Safety and Occupational Medicine (SESMT) in identifying, reporting, and supporting surveillance actions for WVD cases and their determinants"<sup>2</sup>. In organizing the event, the initial idea was to bring together interested researchers (540 registered participants) to discuss the achievements and challenges related to the recognition and management of Work-Related Voice Disorders in various Latin American countries. Representatives from Argentina, Chile, Colombia, Peru, and Venezuela, in addition to Brazil, were invited to participate, and experiences had already been exchanged with two of them (Chile and Colombia) in the past<sup>3</sup>.

The objective of this article is to analyze the achievements and challenges in the recognition of work-related voice disorders in Brazil and Latin American countries, aiming to inspire new paths and encourage other countries to participate in the exchange of experiences movement.

## Description

Considering that the material to be analyzed is available in the media, this qualitative exploratory research did not require referral to an Ethics Committee.

We analyzed video presentations, including the slides from participants of the aforementioned seminar, with a focus on the six representatives from Argentina, Peru, Colombia, Chile, Venezuela, and Brazil. This material is available on the Voice Laboratory (LaborVox) website of the Pontificia Uiversidade Católica de São Paulo (<u>https://www. pucsp.br/laborvox/dvrt.html</u>).

Initially, the event provided an overview of contemporary occupational diseases, following the achievements and challenges of the invited countries, concluding with the participation of a representative from the Ministry of Health of Brazil. An e-book was also launched and made available on the LaborVox website, aimed at better equipping health professionals in managing WVD (https://www.pucsp.br/laborvox/dicas\_pesquisa/ ebooks.html)<sup>3</sup>.

From reviewing the videos and slides, analysis categories were established considering the topics requested from each speaker: detailing achievements in establishing WVD, the treatment protocols in place, and upcoming challenges. An additional category called "Observation" was included for miscellaneous, yet important topics highlighted by the speakers. Moreover, the laws enacted in each country were compiled.

Thus, Chart 1 describes the achievements, treatment approaches, and specificities of each



country that participated in the event, as cited in their presentations, concluding with the challenges overcome by each.

It is noted that there are differences among the countries, despite similar reports on working conditions. While Brazil, Colombia, and Chile focus more on WVD issues, the other countries have laws addressing labor issues but do not specifically tackle voice use in the workplace. Peru, due to its low number of registered speech therapists, lacks legislation addressing voice problems and only conducts actions on World Voice Day. Venezuela, on the other hand, recognizes codes for classifying dysphonia but lacks a specific law addressing voice use in a work context.

**Chart 1.** Account of aspects related to achievements, treatment, observations, and challenges, considering the countries Argentina, Chile, Colombia, Peru, Venezuela, and Brazil.

Country	Achievements	Treatment	Observations	Challenges
Argentina	Decree 659/96: Scale of Oc- cupational Disabilities Asses- sment Decree 1338/96: Occupational Risk Superintendence - res- ponsible for determining the medical examinations that Occupational Risk Insurers or employers must perform. Resolution 37/10: establishes the health medical examina- tions that will be included in the risk and work deadlines system. It establishes that to be considered, the exposure must be equal to or greater than 13 and a half clock hours (18 class hours). Resolution 389/13: regulates the evaluation, modality, and duration of treatment, naming the pathology Occupational Dysphonia as that probably caused by work exposure, disease, causal re- lationship	Once the occupational disease is established, the insurers have a minimum period of 5 days to perform an indirect laryngoscopy. The victim's evaluation by an interdisciplinary team compo- sed of at least one specialist in otorhinolaryngology and a speech therapist with training in phoniatrics. The team must present a written therapeutic plan that includes objectives, number of sessions, frequency, proposed techniques, prognosis, and estimated duration of treat- ment. Vocal rest is part of the treatment. Therapy will always be indi- vidual.	Occupationally related patho- logies: anteroposterior fissure, grade II longitudinal and pos- terior fissure, nodules, polyps, use of ventricular bands, laryn- geal hyperfunction. The insurers are non-govern- mental, for-profit entities that will cover all work-related da- mages, with 100% comprehen- sive coverage. There is no national primary action plan.	<ol> <li>Unify therapeutic criteria among professionals con- tracted by the ART.</li> <li>Update methods and evaluation criteria accor- ding to international pro- posals.</li> <li>Incorporate speech the- rapists into occupational medicine societies.</li> <li>Guide teachers on the needs of new modalities of virtual classes, lectures, workshops, and graphic material. Teleconsultation - since Covid-19.</li> </ol>
Perú	The National Survey of Educa- tional Institutions at the Initial, Primary, and Secondary Levels, as well as the National Survey of Teachers, identified proble- matic factors related to health and safety policies at work. The Ministry of Education reported that 45% of teachers in public sector educational institutions suffer from some type of vocal pathology, problems with the phonatory apparatus, sore throat, inflammation of the phonatory apparatus, sore throat, inflammation of the phonatory apparatus, and 49% in coastal areas. On the other hand, a study by the Institute of Popular Pedagogy, at the national level, showed that the most recurrent health problems among teachers are respiratory system diseases (70.4%) and that excessive voice strain during classes le- ads to the occurrence of some vocal pathology.	Absence of a law that consi- ders dysphonia in teachers as an occupational health pro- blem. The Ministry of Education developed an informational booklet for vocal care, which offers recommendations and useful advice to follow during teaching practice. The World Voice Day Campaign has been carried out since 2002 through the Peruvian Center for Hea- ring, Language, and Learning (CPAL), where free lectures and courses, both in-person and online, are offered to teachers.	Peru has 370,000 teachers (62% are women, average age of 45 years, 39% in urban co- astal areas). Research in Peru reported voice problems of occupational origin: intensive use of the voice, respiratory infection, exposure to cold, not having received any treatment for vocal alteration, progressive onset of vocal alteration, and the main predisposing factor being the absence of adequate vocal preparation. The lack of awareness to monitor and maintain vocal health puts the health of teachers at great risk.	<ol> <li>Inclusion in the teachers' curricula of a subject re- lated to the efficient and healthy use of the voice at work, through workshops, lectures, and training that allow them to learn how to take care of their voice.</li> <li>Interdisciplinary work in the area of occupational voice.</li> <li>Knowledge of the costs of voice problems asso- ciated with working con- ditions, their assessment, and their treatment.</li> </ol>

Country	Achievements	Treatment	Observations	Challenges
Colombia	Resolution 1.016 of 1989 Article 10. Conducting occu- pational medical, clinical, and paraclinical examinations. Resolution 2.346 of 2007 Article 2. Definition of occu- pational medical examination. Article 13. Specific medical assessments according to risk factors.	Decree 614 of 1984 - Article 24: Inform workers about the risks they are exposed to, their effects, and the corresponding preventive measures. Decree 723 of 2013: Carry out prevention and promotion acti- vities; and allow the contractor to participate in training. Resolution 1.016 of 1989: The main purpose of the subpro- grams of preventive medicine and occupational health is the promotion, prevention, and control of worker health.	Decree 1.477 of 2014: publi- shes the Table of Occupational Diseases Group VII – Diseases of the ear and voice disorders (J37.0 – J38.1 – J38.2 – R49.0)	The need for specific guide- lines for online classes, so relevant during and after the COVID-19 pandemic.
Chile	Speech therapy (evaluation and treatment) is possible within the Administrative Organizations (AO) of Law 16.744, which are obligated to provide benefits for pre- vention and control of risks, as well as clinical benefits and related expenses. A teacher experiencing vocal difficulties requests assessment from service providers; they will first see a general practitioner, who will then refer them to an otolaryngologist for further evaluation and subsequently to sessions of vocal therapy with a speech therapist. If ne- cessary, laryngeal surgery will be performed. Statistics from the Chilean Safety Association (ACSH) regarding diagnoses of dysphonia in 2018 were 279 teachers, in 2019: 293 teachers, in 2020: 30 teachers, Statistics from the Institute of Safety at Work (IST) regar- ding diagnoses of dysphonia between 2012 and 2017 show 186 assessments, with 75.8% diagnosed as functional organic dysphonia and 69.5% referred to speech therapy. As of 2020, no data is available.	By law, workers have benefits granted through the AOs. Their employer must facilitate access to vocal therapy, considering it as working hours. The low demand for vocal treatment may be related to teachers' limited knowledge about their benefits. Poor adherence to therapy can indicate a chronic issue and may lead to relapses in the near future. Health pro- motion and disease prevention initiatives are still timid and unregulated, and teacher trai- ning needs greater attention regarding vocal care.	Recent research on the preva- lence of dysphonia in the Chi- lean population indicates that 3 out of 4 teachers experience some form of vocal disorder of varying severity, yet only 6% of them have been formally evalu- ated and diagnosed. The lack of screening procedures and early intervention for voice disorders among teachers highlights the magnitude of the problem, despite the existence of a cir- cular (3.331) addressing this issue. There is still no unified criterion for an epidemiologi- cal surveillance program for dysphonia. The working hours of Chilean teachers constitute 75% of the total working hours for educators, surpassing the standards set by countries in the Organization for Economic Cooperation and Development (OECD).	<ol> <li>Improve adherence to therapy; monitor the recur- rence of occupational vocal problems.</li> <li>Provide speech thera- py services to university professors affiliated with ACHS, IST, and similar institutions.</li> <li>Monitor the impact on vocal health through offe- red prevention measures (workshops, lectures, trai- ning sessions, courses).</li> <li>Clinically recognize chro- nic dysphonia in teachers; administratively differen- tiate Occupational Disease and Occupational Accident in dysphonia cases.</li> <li>Turolve speech therapists in teacher training (Law 19.070) and administrative management.</li> <li>Establish official procedu- nical standards providing guidance on managing risks and monitoring workers with occupational voice use, recording exposure levels, and various agents that exacerbate/favor Oc- cupational Laryngopathies.</li> </ol>
Venezuela	List of Occupational Diseases "Vocal Cord Diseases": Dysphonias (ICD-10 code: R49.0). Vocal cord polyps (ICD-10 code: J38.1). Other vocal cord diseases (ICD- 10 code: J38.1).	Multidisciplinary care: Phonia- trist (1 per 366,666 inhabi- tants), Otolaryngologist (1 per 100,000), Speech Therapist (1 per 110,000), Occupational He- alth Physician (1 per 100,000).	Mixed Healthcare System: public and private. Registration of information on occupational diseases INPSASEL (Ministry of Labor).	<ol> <li>The main challenge lie in moving beyond a sti nascent phase in recogni zing Work-Related Voice Di sorders, considering care education, and research.</li> <li>Increase the number of specialized professional in the field, given thei very low density in th population.</li> <li>Favor large urban con centrations with these pro fessionals initially, and i a second phase, smalle cities.</li> <li>Increase awareness of the issue, involving occu pational physicians an occupational health pro fessionals.</li> </ol>



Country	Achievements	Treatment	Observations	Challenges
Brasil	The Ministry of Health publi- shed in 2018 the Protocol of Differentiated Complexity No. 11. Work-Related Voice Disor- der (WRVD). For the diagnosis, the following aspects must be considered: a) Clinical and occupational history (envi- ronmental risk factors, work conditions and organization) and epidemiological evidence (Occupational Anamnesis Pro- tocol); b) Medical evaluation with imaging exams of the laryngopharyngeal region, preferably conducted by an otolaryngologist; c) Speech therapy evaluation of the voice; d) Job/activity surveillance to ascertain the work-relatedness, if necessary. In the List of Con- ditions (ICD-10): R49: Voice Disturbance under suspicion or confirmation of the condition.	veillance actions on the work environment and organization. Worker reassignment to ano- ther role in case of recurrence	"The WRVD Protocol aims to guide professionals in the public SUS network (Health Surveillance, Primary Care, medium and high complexity), private services, corporate health services, and Speciali- zed Services in Occupational Safety and Health (SESMT) to identify, report, and support surveillance actions for cases of WRVD and its determinants." (Ministry of Health). It propo- ses a care pathway focused on comprehensive health care for workers, with actions in promotion, protection, and rehabilitation, based on health surveillance, informed through mandatory reporting of the condition.	WRVD service network/ care pathway. 2. Mandatory reporting of WRVD, for action planning. 3. National recognition of WRVD as a work-related disease. 4. Professional training

Chart 2 presents the current laws in each country related to occupational diseases.

Chart 2. Legislation related to Work-Related Voice Disorders currently in force in part	icipating
countries	

Country	Current Laws
Argentina	Law No. 24.557/1996: occupational risks law. There is a list of occupational diseases that includes Dysphonia as an occupational disease (likely caused by workplace exposure), based on 4 attributes: Agent, exposure, disease, causal relationship. Decree No. 658/96: List of occupational diseases. Decree No. 1338/96: SUPERINTENDENCY OF WORK RISKS Responsible for determining the medical exams that ARTs (Technical Risk Administrators) or employers must conduct. Resolution No. 37/10: Establishes the medical health exams that will be part of the work risks system and their deadlines. It states that for exposure to be considered in teaching, it must be equal to or greater than 13 hours and 30 minutes (18 teaching hours). Resolution No. 389/13: Regulates the Evaluation, Modality, and Duration of treatment.
Peru	Law 29.783 on occupational safety and health regulates the requirement for occupational medical exams to be conducted every two years; it is not conducted in the public sector.
Colombia	Decree 723 of 2013: Regulates the affiliation to the General System of Occupational Risks for individuals linked through formal employment contracts for service provision. Decree 1.477 of 2014: Edits the Table of Occupational Diseases, including diseases of the ear and voice disorders.
Chile	Laryngopathies were included (2000) as an occupational disease (amendment to Supreme Decree 109 of Law 16.774 on Occupational Accidents and Diseases).
Venezuela	Organic Law on Prevention, Working Conditions, and Environment, Official Gazette No. 38,236, dated July 26, 2005, in its article 70: "Occupational diseases are pathological conditions contracted or aggravated during work or exposure to the environment in which the worker is required to work, attributable to the action of physical and mechanical agents, ergonomic and meteorological conditions, chemical and biological agents, psychosocial and emotional factors, manifested by organic injury, enzymatic or biochemical disorders, functional disorders, or mental imbalance, whether temporary or permanent."
Brazil	Social Security List - Decree No. 3.048/99: Lists work-related diseases (Social Security), according to the ICD, the pathogenic and risk agents. It includes the "phonatory apparatus" under the condition "speech disorder to a medium or maximum degree, verified by objective clinical methods," for the purpose of social security benefits. Ministry of Health's List of Work-Related Diseases - Report GM/MS No. 2,309, dated August 28, 2020, updated the List of Work-Related Diseases (LDRT), including WRVD, with "work-related vocal overload" as the primary risk factor, exacerbated by "psychosocial factors related to work characteristics and organization" and "factors related to the work environment." Conditions and their respective codes according to the International Classification of Diseases (ICD-10): a) acute laryngotracheitis (J04.2); b) chronic laryngotracheitis (J37.1); c) diseases of the vocal cords and larynx not classified elsewhere (J38); d) vocal cord nodules (J38.2); and e) voice disorders (R49). This list was revoked by Ministry of Health Portal GM/MS No. 2,345/2020. Note: The LDRT was approved the year following the seminar - GM/MS Ordinance No. 1,999, dated November 27, 2023.



In a review of the context of occupational diseases in Latin America, it was initially highlighted that this is the region of the world with the greatest income inequality, largely marked by skin color and ethnicity. Although it was not previously determined that presentations should specifically detail any voice professional, it became clear that the category of teachers is most affected by voice disorders in the workplace, with more registered research involving this profession as subjects.

The representative from Chile mentioned a projection that by 2025, the number of teachers will decrease by 19% compared to societal needs. Adverse factors such as those associated with the environment and organization of work, along with low remuneration, have been considered generators of physical and psychological exhaustion among these workers.

Instances of job insecurity, unemployment, and economic policies with few possibilities for reversal have led to increased poverty and social exclusion, reinforcing a vicious circle of inequality and deprivation—factors mentioned by the speakers. This situation often leads to the occurrence of Burnout Syndrome. For teachers, risk factors include professional ambiguity and conflicts, difficulty in discipline management, low student motivation, lack of support materials, time management pressures, excessive administrative workload, and declining social recognition of the teaching profession.

From the employer's perspective, there continues to be a lack of awareness of the economic impact caused by costs associated with occupational diseases. Absenteeism records, reduced capacity or motivation for work are some aspects to consider. Few resources are invested in improving workers' quality of life. Such resources should be directed towards preventing the onset of diseases, primarily through adjustments in the work process.

Regarding aspects related to WRVD (Work-Related Voice Disorders), it can be highlighted that:

• Recognition of WRVD in legislation was first presented in countries with a history of labor legislation and discussions on the topic, such as Brazil, Colombia, and Chile. When WRVD is recognized, which occurred in the second decade of the 2000s, vocal overload/effort is associated as a determinant for registering the voice disorder. In the case of Peru, which does not yet have legislation in this regard, it is observed that the lack of training among speech therapists in this country hinders advocacy efforts, as well as difficulty in managing the disorder.

- In recent years, it has been understood that although workers may have personal factors that can cause voice disorders (gender, age, habits, presence of allergic conditions, laryngopharyngeal reflux, among others), adverse factors present in the work environment and organization determine the onset or exacerbation of WRVD. Moving away from the premise that the voice professional is solely responsible for the occurrence of voice disorders, actions should be planned to recognize the complexity of factors influencing the onset of this disorder. The issue of causality should be emphasized, meaning that antecedent, concomitant, and subsequent causes of voice disorders can coexist without negating their relationship with work.
- The working conditions reported by participating countries are very similar, with records of adverse factors present in the work environment and organization, associated with reports of overwork and inadequate professional recognition. These aspects reinforce the idea that in the case of teachers, they fulfill a "calling," susceptible to daily self-sacrifice in the execution of their work.
- As mentioned, teachers are the most researched professionals, with high percentages of vocal complaints and little information about voice care in their training. According to the representative from Chile, there is low adherence to treatment initiatives, possibly due to unawareness of available therapies as a right or lack of time due to excessive workload, and reinforced perception that their professional role responds to a vocational calling of sacrifice.
- Most countries recognize that attention should focus on comprehensive health actions aimed at promoting health, preventing, and treating diseases. Representatives from Colombia and Brazil highlighted the need for monitoring work environments, an important aspect to reduce the occurrence of voice disorders.
- The representative from Argentina raised questions about the evaluation and treatment of voice disorders, considering aspects such as the duration of the process, number of sessions, patient frequency in the process, and the program to be implemented. She also noted that therapies are mostly individual, a fact that could be



reviewed as group treatment initiatives have proven to be a potent strategy to reverse WRVD.

- The representative from Peru emphasized the importance of considering the International Classification of Functioning (ICF) in managing WRVD.
- In society, the approval of a law is important, but it is necessary for it to "come off paper" and happen in daily life, considering the rights and duties of beneficiaries. Among countries with legislation on WRVD, isolated movements of interest are observed. In Brazil, despite the WRVD protocol being published in 2018, it was not included in the List of Work-Related Diseases at the time of the Seminar, only being included in 2023 through Ordinance GM/MS No. 1,999, November 27, 2023.
- Reporting a health grievance allows for systematizing information, increasing visibility of worker disease occurrences, and consequently supporting more effective action planning. According to the representative from Venezuela, such actions would primarily be the responsibility of a team composed of a speech therapist, phoniatrist, otorhinolaryngologist, and occupational physician (it was mentioned that there is a reduction in the number of medical phoniatrists, also observed in Brazil).
- Representatives from Brazil and Venezuela highlighted the need to stimulate better training for professionals in managing WRVD.
- Some countries (Peru and Venezuela) still have little bibliographic production on the subject.
- Assistance to workers with WRVD in different countries is the responsibility of public or private institutions. In some countries (such as Brazil and Chile), they are linked to the Ministry of Health, and in the case of Argentina and Venezuela, also to the Ministry of Education. In Argentina, assistance is provided by private companies, occupational risk insurers (ARTs) regulated by the Superintendence of Occupational Risks (SRT), an agency created by law attached to the Ministry of Labor, Employment, and Social Security.
- Representatives from Colombia, Chile, and Brazil highlighted that during the pandemic period, when some voice professionals were conducting their activities remotely from home, factors like those when working in person were recorded. In the case of teachers, they were

not in classrooms with an excessive number of students but at home, exposed to domestic noise and technological issues such as internet access difficulties, computer management, microphone, headphones, among others. These factors constituted another work environment, different from the one encountered when the teacher was in a face-to-face context but also with various adverse health factors, interfering with voice production and psychosocial sphere. In this sense, recent research showed that teachers reported vocal symptoms, increased workload (classes, consultations, meetings, training), and recorded more weekly classes, with increased stress levels and greater vocal fatigue during virtual classes.

- Alerts were raised about the post-pandemic period when professionals face other challenges such as speaking with masks and social distancing, an experience reported by most participating countries. The representative from Chile also highlighted the phenomenon of aggression and emotional lability, reported by students and teachers as a post-pandemic effect.
- As points of reflection, the participant from Chile commented on the need to verify teachers' adherence to vocal therapy and monitor recurrence of voice problems in these professionals. It is also urgent to verify the monitoring of the impact of prevention measures on vocal health (Law 19,070, Chile), justifying the importance of speech therapists' presence in teacher training.

In conclusion, it is noteworthy from the presentations of the speakers that many initiatives have been proposed by different countries, reinforced by World Voice Day celebrations. However, these initiatives have had little impact on reducing the occurrence of WRVD, which encourages greater exchange of experiences and research efforts.

# **Final Remarks**

The similarities recorded among countries, both regarding the working conditions (environment and organization) of so-called voice professionals, and more specifically teachers, as well as in actions to reverse the occurrence of WRVD, documented in the form of experience reports, research, or legislation development, highlight the need for greater exchange among Latin American countries. This aims to promote the creation of a



permanent forum for discussion and planning of multicenter research. Perhaps initially understanding the presence of vocal disorders before teachers begin their work, that is, during their training.

Other countries should be invited to join this movement to broaden the understanding of WRVD management in Latin America, given the similar working conditions found among its constituent countries.

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