

# Temporal trend of the speech-language pathology workforce in the Brazilian Unified Health System

Tendência temporal da força de trabalho da fonoaudiologia no Sistema Único de Saúde do Brasil

Tendencia temporal de la fuerza laboral de la fonoaudiología en el Sistema Único de Salud de Brasil

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#### Abstract:

**Objective:** to analyze the temporal trend of the speech-language pathology workforce. **Methods:** quantitative, ecological time-series study on the availability of speech-language pathology professionals in the Brazilian Unified Health System. Data were extracted from the Brazilian National Registry of Health Establishments, considering the month of January for each year, from 2008 to 2024, and analyses of temporal trend (joinpoint regression), both at regional and national levels. **Results:** there was an increase in the speech-language pathology workforce in the Unified Health System in all regions of Brazil during the studied period, with emphasis on the North (10.1%) and Northeast (9.1%) regions, which presented the highest percentage growth. The Southeast region maintained the largest number of speech-language pathologists in all observed years. The most significant growth in all regions occurred in the first years of the time series, especially between 2008 and 2010. **Conclusion:** there was an increase in the speech therapy workforce in the Brazilian Unified Health System and the public health policies implemented or strengthened during the period analyzed may have contributed to this growth.

**Keywords:** Health Human Resource Evaluation; Speech-Language and Hearing Sciences; Health services; Public health.

#### **Resumo:**

**Objetivo:** analisar a tendência temporal da força de trabalho em fonoaudiologia. **Método:** estudo quantitativo, ecológico de série temporal sobre a disponibilidade de profissionais de fonoaudiologia no Sistema Único de Saúde do Brasil. Os dados foram extraídos do Cadastro Nacional de Estabelecimentos de Saúde, considerando o mês de janeiro para cada ano, no período de 2008 a 2024 e as análises foram de tendência temporal (*joinpoint regression*), tanto em nível regional quanto nacional. **Resultados:** houve aumento da força de trabalho em fonoaudiologia no Sistema Único de Saúde em todas as regiões do Brasil durante o período estudado, com destaque para as regiões Norte (10,1%) e Nordeste (9,1%), que apresentaram os maiores crescimentos percentuais. A região Sudeste manteve o maior número de fonoaudiólogos em todos os anos observados. O crescimento mais expressivo em todas as regiões ocorreu nos primeiros anos da série temporal, especialmente entre 2008 e 2010. **Conclusão:** houve aumento da força de trabalho de fonoaudiologia no Sistema Único de Saúde do Brasil e as políticas públicas de saúde implementadas ou fortalecidas durante o período analisado podem ter contribuído para esse crescimento.

Palavras-chave: Avaliação de recursos humanos em saúde; Fonoaudiologia; Serviços de saúde; Saúde pública.

#### **Resumen:**

**Objetivo**: analizar la tendencia temporal de la fuerza laboral en logopedia. **Método**: estudio cuantitativo, ecológico de serie temporal sobre la disponibilidad de profesionales de logopedia en el Sistema Único de Salud de Brasil. Los datos fueron extraídos del Registro Nacional de Establecimientos de Salud, considerando el mes de enero de cada año, en el período de 2008 a 2024, y los análisis fueron de tendencia temporal (*joinpoint regression*), tanto a nivel regional como nacional. **Resultados**: se observó un aumento de la fuerza laboral en logopedia en el Sistema Único de Salud en todas las regiones de Brasil durante el período estudiado, destacándose las regiones Norte (10,1%) y Nordeste (9,1%), que presentaron los mayores crecimientos porcentuales. La región Sudeste mantuvo el mayor número de logopedas en todos los años observados. El crecimiento más significativo en todas las regiones ocurrió en los primeros años de la serie temporal, especialmente entre 2008 y 2010. **Conclusión**: hubo un aumento de la fuerza laboral en logopedia en el Sistema Único de Salud de Brasil, y las políticas públicas de salud implementadas o fortalecidas durante el período analizado pueden haber contribuido a este crecimiento.

Palabras clave: Evaluación de Recursos Humanos en Salud; Fonoaudiología; Servicios de salud; Salud pública.

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## **INTRODUCTION**

he Brazilian Unified Health System (*Sistema Único de Saúde* - SUS) is known worldwide as one of the most comprehensive and complex public health systems, guaranteeing full, universal and free access<sup>1</sup>. The implementation of the SUS in Brazil allowed access to health for the entire population, without any discrimination<sup>1</sup>. From this milestone, comprehensive health care became a right of all Brazilian citizens, with a focus on quality of life, disease prevention and health promotion<sup>1</sup>.

Several professional categories are important for health care, especially within the scope of the SUS. The contribution of speech therapy extends from pregnancy to old age, covering areas such as breastfeeding, breathing, swallowing, speaking, hearing and language, both oral and written<sup>2.</sup> Speech therapists can be part of multidisciplinary teams in different health services, such as the Cegonha Network, the Health Care Network for People with Chronic Diseases, the Health Care Network for People with Disabilities, the Psychosocial Care Network and the Emergency and Urgency Network<sup>2</sup>.

The work of speech-language pathologists in the Brazilian public health system began between the 1970s and 1980s<sup>3</sup>, and has expanded and become more relevant over the years, especially in the late 1990s, when many professionals were integrated into the public health care network, as a premise of the principles of the SUS; with this, their scope of work was expanded to the three levels of health care, namely, primary health care (PHC), specialized outpatient care (SAC) and hospital care (HA)<sup>4-5</sup>.

In PHC, the speech-language pathologist may be included in the Family Health Support Centers (*Núcleos de Apoio à Saúde da Família* - NASF), currently known as e-Mu*lti, in the Family Health Strategy or in the School Health Program* (Programa Saúde na Escola - PSE). In SAC, they perform specialized functions, forming part of the Multidisciplinary Home Care Teams or Multidisciplinary Support Teams, and may also be present in the Psychosocial Care Center, in Outpatient Clinics or Specialized Rehabilitation Centers. In HA, they work in inpatient units and Intensive and Semi-Intensive Care Units, meeting the demands of maternity wards and situations/changes resulting from accidents or in the pre and post-operative period of different surgeries<sup>6</sup>.

These different areas of work of the speech-language pathologist in the SUS are justified by the increase in the prevalence of chronic diseases and conditions associated with disability, which have been influenced by population growth and aging. The Global Burden of Disease showed the global increase in disability-adjusted life years from 2010 to 2021, emphasizing that this increase was mainly due to demographic changes<sup>7</sup>, which supposedly leads to an increase in the demand for health services.

Identifying and analyzing the speech-language pathology workforce in the SUS is essential to understanding the distribution and evolution of this professional category in Brazil over the years. Verifying the temporal trend in the availability of speech-language pathologists allows us to assess the expansion of coverage, as well as detect regional inequalities in access to health services.

In addition, these data are essential to support the planning of public policies that lead to greater equity and efficiency in health care, reinforcing the strategic role of speech-language pathology in comprehensive health care and in addressing the growing demographic and epidemiological demands in the country.

Considering the increase in health demands in recent years and the strengthening of multidisciplinary work, the speech-language pathologist is a health professional who can be inserted in several SUS establishments, and thus contribute to the health care of the population.

The study of the workforce of speech-language pathologists seeks to consolidate the category in the SUS and improve the provision of health with the contribution of the skills and competencies that this professional possesses. Thus, this study aims to analyze the temporal trend of the speech therapy workforce.

## **METHODS**

Quantitative and ecological study of a time series on the availability of speech-language pathologists in the Unified Health System in Brazil. Data were collected in June 2024 from the Brazilian National Registry of Health Establishments (*Cadastro Nacional de Estabelecimentos de Saúde* - CNES), considering January as the reference month to represent each year between 2008 and 2024, since this month was present in all years at the time of data collection.

The population of this study was composed of speech therapists enrolled in the SUS and who were duly registered with the CNES during the period of analysis. For this study, the following Brazilian Occupational Classifications were considered: 2238-10 (general speech therapist), 2238-15 (educational speech therapist), 2238-20 (audiology speech therapist), 2238-25 (dysphagia speech therapist), 2238-30 (language speech therapist), 2238-35 (orofacial motricity speech therapist), 2238-40 (public health speech therapist), 2238-45 (voice speech therapist)<sup>8</sup>.

The temporal trend analyses were performed by Brazilian geographic region and Brazil, through regression (joinpoint regression), in the Joinpoint software version 5.2.0, in which the

mean percentage variation was estimated, with a 95% confidence interval. The final model was the best-fit model, with the Annual Percentage Change (APC), based on the trend of each segment, estimating whether these values were statistically significant (p<0.05)<sup>9-10</sup>.

To quantify the trend of the years analyzed, the Average Annual Percent Change (AAPC) was calculated, which is calculated based on the cumulative geometric mean of the APC trends, with equal weights for the lengths of each segment during the fixed interval. The significance tests used were based on the Monte Carlo permutation method and the calculation of the annual percentage change of the ratio, using the logarithm of the ratio<sup>9-10.</sup>

According to resolution no. 466/2012 of the Brazilian National Health Council, studies that use secondary data available in public access databases do not require referral and approval by Research Ethics Committees<sup>11</sup>.

## RESULTS

There was a 180% increase in the number of speech therapists in the SUS from 2008 (8,603) to 2024 (24,090). The North region showed the largest increase (360%) in the period studied, followed by the Northeast (310%), Central-West (221%), South (203%) and Southeast (117%). The Southeast region has the largest number of speech therapist in the SUS over the years. In 2008, there were 4,845 speech therapists, and in 2024, this number reached 10,558 (Chart 1).

Year	North	Northeast	Southeast	South	Central-West	Brazil
2008	320	1428	4845	1447	563	8603
2000	407	1904	F007	1756	505	10420
2009	407	1804	5807	1/50	664	10438
2010	496	2199	6518	2025	769	12007
2011	581	2508	6822	2197	817	12925
2012	631	2756	7028	2277	868	13560
2013	658	2960	7285	2438	911	14252
2014	740	3454	8018	2633	1026	15871
2015	828	3718	8325	2787	1128	16786
2016	856	3805	8270	2877	1115	16923
2017	920	3961	8476	2923	1149	17429
2018	983	4297	8819	3087	1251	18437
2019	1081	4568	9195	3314	1315	19473
2020	1108	4789	9264	3517	1428	20106
2021	1240	4740	9642	3744	1570	20936
2022	1299	5122	10049	3970	1691	22131
2023	1465	5584	10330	4228	1779	23386
2024	1474	5855	10558	4392	1811	24090

**Chart 1.** Speech therapy professionals in the SUS according to Brazilian regions, 2008 to 2024. Brazil, 2024.

The temporal trend analysis showed that there was a statistically significant increase in the number of speech therapists enrolled in the SUS for the five Brazilian regions and Brazil.

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However, the North region showed the largest increase (AAPC=10.1), while the smallest increase was observed in the Southeast region (AAPC=4.9). The largest increases were observed in the first segments for all regions, with emphasis on the period from 2008 to 2010 (Chart 2).

	Segment	First year	Final year	APC	AAPC
	1	2008	2010	17.7*	6.6*
Brazil	2	2010	2014	6.7*	
	3	2014	2024	4.4*	
North	1	2008	2011	21.9*	10.1*
NOTUI	2	2011	2024	7.5*	
	1	2008	2010	24.1*	9.1*
Northeast	2	2010	2014	11.6*	
	3	2014	2024	5.4*	
	1	2008	2010	15.3*	4.9*
Southeast	2	2010	2015	4.5*	
	3	2015	2024	2.9*	
South	1	2008	2010	19.1*	7.1*
South	2	2010	2024	5.5*	
Control West	1	2008	2010	16.9*	7 7*
Central-West	2	2010	2024	6.5*	1.1*

**Chart 2.** Temporal trend of the workforce of speech therapy professionals in the SUS according to Brazilian regions, 2008 to 2024. Brazil, 2024.

**Legend:** First year: Initial year of the segment; Final year: End year of the segment; APC: Annual Percent Change; AAPC: Average Annual Percent Change; \*Statistically significant at the 5% level; Follow-up: time interval that represents a specific trend within the analyzed period, may be increasing, decreasing or stable.

### DISCUSSION

Between 2008 and 2024, there was an increase in the number of speech therapists in the SUS in all regions of Brazil, with emphasis on the North and Northeast regions, which showed the highest percentage growth over the years. Although the Southeast region already had the largest number of speech therapists at the beginning of the study, and also registered an increase, it was the region with the lowest percentage increase in the observed period. For all regions, the most significant growth occurred in the first years, which in common include the period from 2008 to 2010.

It is possible that the greatest increases in the insertion of speech therapists in the SUS are linked to government programs that aim to implement universal and comprehensive health care, which requires professionals to adjust their practices due to new trends and demands in primary health care<sup>12</sup>, programs implemented in the period in question (2008 to 2010), as well as in adjacent years.

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Speech therapists are part of multidisciplinary teams within the Health Care Network<sup>13</sup>, and also have the skills to work in Integrative and Complementary Health Practices<sup>14</sup>. In this context, the Brazilian Federal Council of Speech Therapy has worked to defend and strengthen the professional category, increasing the number of practices in the SUS setting.

In 2007, the Brazilian government, through the Ministries of Education and the Ministry of Health, established the Health at School Program (*Programa Saúde na Escola* - PSE)<sup>15</sup>, including speech therapists due to their skills in developing several of the health actions provided for by the program. Subsequently, Ordinance GM/MS 154/2008<sup>16</sup> opened up a broader field of activity for this professional in the SUS, by creating the NASF. Later, there was a strengthening of the work of several professional categories, including speech therapy, with the approval of the National Primary Care Policy<sup>17</sup> and the creation of the *Plano Viver Sem Limites*<sup>18</sup>, aimed at people with disabilities, and reformulated in 2023 as the *Novo Viver Sem Limites*<sup>19</sup>.

When analyzing the difference in the total number of speech therapists in Brazil, between consecutive years, there was an increase of more than 1,500 professionals from 2008 to 2009, as well as from 2009 to 2010. This growth was no longer recorded in the following years. Subsequently, the number of new professionals per year varied, with increases sometimes exceeding a thousand, and other times smaller.

In both 2008 and 2024, the North and Southeast regions had the lowest and highest numbers of speech therapists, respectively. In 2008, the Southeast region had around 1,400% more professionals than the North region. However, by 2024, this difference had been reduced to approximately 700%, although the Southeast still has a larger number of speech therapists compared to the North. There has been a reduction in inequalities between regions over the years, but there are also disparities in the supply of speech therapists and inequalities in their distribution among Brazilian states, with regions with better socioeconomic conditions having the best indicators of supply of speech therapists services, while those with the worst indicators have the lowest supply<sup>20</sup>. The North region has only 9.6% of undergraduate courses in Speech Therapy, while the Southeast region has 38.6%<sup>21</sup>.

Expanding access to services offered by the speech therapy workforce in the North and Northeast regions of the country, which have lower socioeconomic conditions<sup>20</sup>, would be linked to expanding primary care coverage in these regions, guided by the principle of equity, which is one of the foundations of the SUS<sup>20</sup>.

There may be several reasons for the slowdown in the growth of the speech therapy workforce after 2010: lack of knowledge on the part of other professionals in healthcare teams

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about the role of speech therapists; lack of knowledge of users' speech therapist needs; and aspects of the health network flows<sup>5</sup>. These factors make it difficult to include speech therapists in healthcare teams and the flow of referrals, hindering users' access to speech therapist services. It is also possible that, in some regions, there is a lack of incentives for the inclusion of these professionals in the SUS, given that the category still faces challenges related to the definition of minimum wage and working hours<sup>22</sup>.

The spatial and temporal dispersion of rehabilitation professionals from 2007 to 2020 in the three levels of health care in the SUS for the provision of speech therapists was 0.50 professionals for every 10,000 inhabitants, and although there is no official recommendation on the ideal number of rehabilitation professionals, the document published by the World Health Organization "Rehabilitation 2030: A Call for Action" points to a shortage of qualified professionals, resulting in insufficient rehabilitation care<sup>23</sup>.

It is common for undergraduate courses to direct the training of these professionals towards rehabilitation. However, in the SUS, the speech therapist must work in harmony with the Health Care Networks, understanding the work processes of each point in the network and their intersections with the political guidelines, and their performance depends on the epidemiological profile of the territory and the service where they are inserted, aligning with the level of care and the priorities of the team<sup>24</sup>. In the SUS, their practice occurs in an integrated system, with an expanded and articulated logic.

The funding changes introduced by the 2017 National Primary Care Policy and the *Previne Brasil* program in 2019 may have compromised the expansion of the rehabilitation workforce, and the study points to a reduction in the density of speech therapists from 2018 onwards, in addition to stabilization and deceleration in the growth of other categories, reflecting the impacts of these policies<sup>19</sup>. The data raises alarm, since in low and middle-income countries, the need for rehabilitation services is increasing more rapidly than in high-income countries, but there are fewer professionals available<sup>25</sup>.

Speech therapy training in Brazil is mostly private, with 71.1% of courses offered by private institutions and only 28.9% by public institutions<sup>21</sup>. The course completion rate also differs significantly: 71.68% of students at public institutions complete the course, while at private institutions this number drops to 22.02%. Despite the greater number of vacancies offered, many are not filled, and the dropout rate in private institutions is high<sup>26</sup>. This reality compromises the availability of professionals and impacts the inclusion of the Speech Therapy professional category in the SUS, especially beyond rehabilitation. In addition, it is essential that

the curriculum be revised to align training with the demands of the public health system, strengthening the role of speech therapists in health promotion and disease prevention<sup>21</sup>.

Public health policies for rehabilitation have contributed to increasing the number of speech therapists in the care of people with disabilities at all three levels of health care, although it is still low in all Brazilian regions<sup>27</sup>. In addition to specialized care in rehabilitation services, it is important to highlight the relevance of speech therapists in primary health care (PHC), expanding the population's access to its services and reducing the demand for care in secondary care, which contributes to the organization of the health network and optimizes the use of human and material resources<sup>28</sup>.

In the context of PHC, the implementation of interdisciplinary activities faces some additional difficulties, such as the lack of knowledge about the role of speech therapists<sup>29-30</sup>, as well as a limitation in their training, which is still very focused on the biomedical perspective and little directed towards developing a holistic vision for SUS users<sup>27</sup>. The interdisciplinary health team involves group work, supported by dialogue, in which each professional category contributes to building collective care, considering the limits, potential and skills of each profession<sup>30</sup>.

The speech therapist plays an essential role in a multidisciplinary approach, contributing to quality of life, health promotion and prevention of problems at different stages, such as encouraging breastfeeding - helping mothers and newborns, identifying and intervening in difficulties with sucking and swallowing, ensuring the success of this fundamental process<sup>31</sup>. In children, the therapist works on the early identification of disorders that may impact communication and literacy, promoting interventions that prevent future difficulties<sup>32</sup>. For the elderly, their work in health promotion groups aims to preserve motor and cognitive functions, contributing to healthy aging<sup>28</sup>. Thus, the speech therapist is a professional with great importance in preventing problems and promoting comprehensive health at all stages of life.

In general, in the SUS, the speech therapist offers comprehensive care and is part of the multidisciplinary team, with a view to offering the best health care to users with chronic diseases, covering health promotion, protection, prevention, diagnosis, treatment, rehabilitation, harm reduction and palliative care. In addition to diseases, it is important to mention the relevance of this professional in voice and hearing preservation care, sound exposure, and hearing protection, which are areas of activity that require further studies and dialogue to further strengthen the professional category in this area of activity.

## CONCLUSION

There was an increase in the speech therapist workforce in the SUS from 2008 to 2024, with emphasis on the period from 2008 to 2010. The Southeast region has the largest number of speech therapists in the SUS in all years observed. The North region had the largest increase in the observed period.

The public health policies that emerged from 2007 to 2010 may have contributed to the increase in the speech therapist workforce in the SUS. However, public strategies are still needed to strengthen this professional category in the SUS through public incentives, so that more and more of the Brazilian population has access to comprehensive care and multidisciplinary services.

This study has a limitation: secondary data may present possible registration objections, even though they are official Brazilian data and consider all public health facilities in Brazil. Health workforce studies are necessary to understand the number of professionals available in the SUS and, thus, plan policies that encourage increased professional inclusion in this environment, improving the fulfillment of health demands.

Future studies should investigate whether there is a direct relationship between the financial difficulties faced in countries and the greater need for rehabilitation by the population, which may justify the creation of more policies that improve access and capacity for care.

It is important to identify the workforce of speech therapists in the SUS, since this professional category is inserted in health establishments and is essential to provide comprehensive health care to SUS users. It is considered necessary that research on this topic can identify the speech therapist workforce by health care levels and that it is possible to measure this workforce, so that health planning is better suited to the health demands of the Brazilian population.

## REFERENCES

Ministério da Saúde (Brasil). Sistema Único de Saúde [Internet]. 2024 [cited in 15 July 2024]. Available from: https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/s/sus
 Conselho Federal de Fonoaudiologia. Fonoaudiologia no SUS [Internet]. 2024 [cited in 19 July 2024]. Available from: https://fonoaudiologia.org.br/comunicacao/folder-fonoaudiologia-no-sus/

3. Moreira MD, Mota HB. Os caminhos da fonoaudiologia no Sistema Único de Saúde - SUS. Rev CEFAC [Internet]. 2009 [cited in 20 May 2024]; 11(3):516-21. DOI: https://doi.org/10.1590/S1516-18462009000300021

4. Costa LR, Costa JLR, Oishi J, Driusso P. Distribution of physical therapists working on public and private establishments in different levels of complexity of health care in Brazil. Braz J Phys Ther. [Internet]. 2012 [cited in 26 Aug 2024]; 16(5):422-30. DOI: https://doi.org/10.1590/S1413-35552012005000051

 Maschio E, Maldonade IR. Percepção dos profissionais de saúde sobre a inserção do fonoaudiólogo na Atenção Primária. Distúrb Comum. [Internet]. 2023 [cited in 20 May 2024];
 35(2):e60153. DOI: https://doi.org/10.23925/2176-2724.2023v35i2e60153

6. Conselho Federal de Fonoaudiologia. Contribuição da fonoaudiologia para o avanço do SUS [Internet]. 2016 [cited in 19 July 2024]. Available from: https://fonoaudiologia.org.br/wpcontent/uploads/2019/09/Contribuicao-Fonoaudiologia-Avancao-do-Sus.pdf

7. Ward ZJ, Goldie SJ. Global Burden of Disease Study 2021 estimates: implications for health policy and research. The Lancet [Internet]. 2024 [cited in 26 Aug 2024]; 403(10440):1958-9. DOI: https://doi.org/10.1016/S0140-6736(24)00812-2

8. Ministério do Trabalho (Brasil). Classificação Brasileira de Ocupações. CBO [Internet]. Brasília, DF: Ministério do Trabalho; 2007 [cited in 24 Jan 2025]. Available from:

http://www.mtecbo.gov.br/cbosite/pages/home.jsf

9. Kim H-J, Fay MP, Feuer EJ, Midthune DN. Permutation tests for joinpoint regression with applications to cancer rates. Stat Med. [Internet]. 2000 [cited in 23 June 2024]; 19(3):335-51. DOI: https://doi.org/10.1002/(SICI)1097-0258(20000215)19:3<335::AID-SIM336>3.0.CO;2-Z

10. Kim H-J, Fay MP, Yu B, Barrett MJ, Feuer EJ. Comparability of segmented line regression models. Biometrics [Internet]. 2004 [cited in 23 June 2024]; 60(4):1005-14. DOI: https://doi.org/10.1111/j.0006-341X.2004.00256.x

11. Novoa PCR. Editorial. O que muda na Ética em Pesquisa no Brasil: resolução 466/12 do Conselho Nacional de Saúde. Einstein (São Paulo) [Internet]. 2014 [cited in 24 Mar 2024]; 12(1):vii–x. DOI: https://doi.org/10.1590/S1679-45082014ED3077

12. Ferreira CL, Silva FR, Martins-Reis VO, Friche AAL, Santos JN. Distribuição dos fonoaudiólogos na atenção à saúde no estado de Minas Gerais entre 2005 e 2010. Rev CEFAC [Internet]. 2013 [cited in 20 July 2024]; 15(3):672–680. DOI: https://doi.org/10.1590/S1516-18462013005000011

13. Ministério da Saúde (Brasil). Portaria nº 4.279, de 30 de dezembro de 2010. Estabelece diretrizes para a organização da Rede de Atenção à Saúde no âmbito do Sistema Único de Saúde (SUS) [Internet]. Brasília, DF: Ministério da Saúde; 2010 [cited in 22 Feb 2025].

Available from:

https://bvsms.saude.gov.br/bvs/saudelegis/gm/2010/prt4279\_30\_12\_2010.html 14. Conselho Federal de Fonoaudiologia. Parecer nº 45, de 15 de fevereiro de 2020. Dispõe sobre o uso profissional das Práticas Integrativas e Complementares em Saúde (PIC) por fonoaudiólogos [Internet]. Brasília, DF: Conselho Federal de Fonoaudiologia; 2020 [cited in 22 Feb 2025]. Available from: https://cffa-

br.implanta.net.br/PortalTransparencia/Publico/ArquivosAnexos/Download?idArquivoAnex o=fd9435fd-af7a-49d6-a757-a726dc06c0ce

15. Presidência da República (Brasil). Decreto nº 6.286, de 05 de dezembro de 2007. Institui o Programa Saúde na Escola - PSE, e dá outras providências [Internet]. Brasília, DF: Presidência da República; 2007 [cited in 19 July 2024]. Available from:

https://bvsms.saude.gov.br/bvs/publicacoes/dec\_6286\_05122007.pdf

16. Ministério da Saúde (Brasil). Portaria nº 154, de 24 de janeiro de 2008. Cria os Núcleos de Apoio à Saúde da Família – NASF [Internet]. Brasília, DF: Ministério da Saúde; 2008 [cited in 19 July 2024]. Available from:

https://bvsms.saude.gov.br/bvs/saudelegis/gm/2008/prt0154\_24\_01\_2008.html 17. Ministério da Saúde (Brasil). Portaria nº 2.488, de 21 de outubro de 2011. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica, para a Estratégia Saúde da Família (ESF) e o Programa de Agentes Comunitários de Saúde (PACS) [Internet]. Brasília, DF: Ministério da Saúde; 2011a [cited in 19 July 2024]. Available from:

https://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt2488\_21\_10\_2011.html 18. Presidência da República (Brasil). Decreto nº 7.612, de 17 de novembro de 2011. Institui o Plano Nacional dos Direitos da Pessoa com Deficiência - Plano Viver sem Limite [Internet]. Brasília, DF: Presidência da República; 2011b [cited in 19 July 2024]. Available from: https://www.planalto.gov.br/ccivil\_03/\_ato2011-2014/2011/decreto/d7612.htm 19. Presidência da República (Brasil). Decreto nº 11.793, de 23 de novembro de 2023. Institui o Plano Nacional dos Direitos da Pessoa com Deficiência - Novo Viver sem Limite [Internet]. Brasília, DF: Presidência da República; 2023 [cited in 19 July 2024]. Available from: https://www.planalto.gov.br/ccivil\_03/\_Ato2023-2026/2023/Decreto/D11793.htm 20. Silva RPM, Nascimento CMB, Miranda GMD, Silva VL, Lima MLLT, Vilela MBR. Evolução da oferta de fonoaudiólogos no SUS: um estudo sobre a correlação com os indicadores sociais no Brasil na última década. CoDAS [Internet]. 2021 [cited in 23 July 2024]; 33(2):e20190243. DOI: https://doi.org/10.1590/2317-1782/20202019243 21. Depoli GT, Feitosa ALF, Costa PFS, Canuto MSB, Alves TCNV. Perfil dos cursos de graduação em Fonoaudiologia no Brasil. Audiol Commun Res. [Internet]. 2020 [cited in 22 Feb 2025]; 25:e2337. DOI: https://doi.org/10.1590/2317-6431-2020-2337

22. Siqueira A. Projeto de Lei nº 2.077/2023. Altera a Lei nº 6.965, de 9 de dezembro de 1981, que "Dispõe sobre a regulamentação da profissão de Fonoaudiólogo, e determina outras providências", para fixar o piso salarial e a jornada de trabalho da categoria [Internet]. Brasília, DF: Congresso Nacional, Câmara dos Deputados; 2023 [cited in 20 July 2024]. Available from:

https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2357731 23. Sixel TRS, Silva DB, Medeiros AA, Bousquat A, Mota PHS, Schmitt ACB. The rehabilitation workforce in Brazil. Arch Public Health [Internet]. 2024 [cited in 20 July 2024]; 82:25. DOI: https://doi.org/10.1186/s13690-024-01249-w

24. Conselho Federal de Fonoaudiologia. Fonoaudiologia nas redes de atenção [Internet]. Brasília, DF: Conselho Federal de Fonoaudiologia; 2021 [cited in 22 Feb 2025]. Available from: https://fonoaudiologia.org.br/wp-content/uploads/2021/01/CFFa\_Guia\_RAS.pdf

25. Conradie T, Berner K, Louw Q. Rehabilitation workforce descriptors: a scoping review. BMC Health Serv Res. [Internet]. 2022 [cited in 23 July 2024]; 22:1169. DOI:

https://doi.org/10.1186/s12913-022-08531-z

26. Brasil BC, Gomes E, Teixeira MRF. O ensino de fonoaudiologia no Brasil: retrato dos cursos de graduação. Trab Educ Saúde [Internet]. 2019 [cited in 22 Feb 2025]; 17(3):e0021443. DOI: https://doi.org/10.1590/1981-7746-sol00214

27. Silva DB, Sixel TRS, Medeiros AA, Mota PHS, Bousquat A, Schmitt ACB. The workforce for rehabilitation in primary health care in Brazil. Hum Resour Health [Internet]. 2021b [cited in 23 June 2024]; 19:127. DOI: https://doi.org/10.1186/s12960-021-00669-x

28. Guckert SB, Souza CR, Arakawa-Belaunde AM. Atuação fonoaudiológica na atenção básica na perspectiva de profissionais dos núcleos de apoio à saúde da família. CoDAS [Internet].
2020 [cited in 24 July 2024]; 32(5):e20190102. DOI: https://doi.org/10.1590/23171782/20202019102

29. Zanin LE, Albuquerque IMN, Melo DH. Fonoaudiologia e estratégia de saúde da família: o estado da arte. Rev CEFAC [Internet]. 2015 [cited in 21 July 2024]; 17(5):1674-88. DOI: https://doi.org/10.1590/1982-0216201517513414

30. Fernandes AC, Carvalho PHS, Rodriguéz-Mártin D, Montilha RCI. Interdisciplinaridade: uma utopia repleta de desafios e presente no discurso -percepções de profissionais da

reabilitação. Rev Fam, Ciclos Vida Saúde Contexto Soc. [Internet]. 2023 [cited in 24 Jan 2025]; 11(2):e6818. DOI: https://doi.org/10.18554/refacs.v11i2.6818

31. Martins CD, Bicalho CV, Furlan RMM, Friche AAL, Motta AR. Ambulatório de amamentação na atenção básica como uma importante ação de promoção ao aleitamento materno: relato de experiência. CoDAS [Internet]. 2024 [cited in 24 July 2024]; 36(3):e20220234. DOI: https://doi.org/10.1590/2317-1782/20232022234pt

32. Viégas LHT, Meira TC, Santos BS, Mise YF, Arce VAR, Ferrite S. Speech, language and hearing services in primary health care in Brazil: an analysis of provision and an estimate of shortage, 2005-2015. Rev CEFAC [Internet]. 2018 [cited in 25 July 2024]; 20(3):353-62. DOI: https://doi.org/10.1590/1982-021620182031918

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