

34 YEARS OF SUS: CELEBRATING PUBLIC HEALTH AND THE LEGALLY OF NURSING

34 ANOS DO SUS: CELEBRANDO A SAÚDE PÚBLICA E O PROTAGONISMO DA ENFERMAGEM

34 AÑOS DEL SUS: CELEBRANDO LA SALUD PÚBLICA Y LA LEGALMIDAD DE LA ENFERMERÍA

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Submission: 12-02-2025

Approval: 07-05-2025

ABSTRACT

Objective: To discuss, based on a reflective analysis, the driving force behind the Unified Health System over the past 34 years and the role of nursing as part of this process of strengthening public health. **Methods:** Theoretical-reflective study, developed based on the analysis of existing bibliographies. To select the studies, a search was carried out in the following databases: Scientific Electronic Library Online, Latin American and Caribbean Literature in Health Sciences, and documents available on the Ministry of Health website, between August and October 2024. After collecting the material, reflective reading, organization, and categorization were carried out, based on Minayo's thematic analysis.

Development: With the reading, interpretation, and empirical knowledge of the authors on the subject, two categories were organized: Category 1. The SUS as a public health response for the Brazilian people; Category 2. SUS and nursing: Building public health together. **Final Considerations:** In its 34 years of existence and operation, the Unified Health System has become a reference point in the history of public health. Built on doctrinal and organizational principles, the system meets the health needs of the population, focusing on the promotion and prevention of health problems. In this context, nursing plays an essential role, acting on the front line of health services and providing care to individuals.

Keywords: Unified Health System; Health Policy; Right to Public Health; Public Health Nursing.

RESUMEN

Objetivo: Discutir, a partir de un análisis reflexivo, el motor del Sistema Único de Salud en estos 34 años y el papel de la enfermería como parte de este proceso de fortalecimiento de la salud pública. **Métodos:** Estudio teórico-reflexivo, desarrollado a partir del análisis de bibliografía existente. Para la selección de los estudios se realizó una búsqueda en las siguientes bases de datos: Scientific Electronic Library Online, Literatura Latinoamericana y del Caribe en Ciencias de la Salud y documentos disponibles en la página web del Ministerio de Salud, entre agosto y octubre de 2024. Luego de recolectado el material, se realizó una lectura reflexiva, organización y categorización, con base en el análisis temático de Minayo. **Desarrollo:** Con la lectura, interpretación y conocimiento empírico de los autores sobre el tema, se organizaron dos categorías: Categoría 1. El SUS como respuesta de salud pública para el pueblo brasileño; Categoría 2. SUS y enfermería: Construyendo juntos la salud pública. **Consideraciones finales:** En sus 34 años de existencia y funcionamiento, el Sistema Único de Salud se ha convertido en un punto de referencia en la trayectoria de la salud pública. Construido sobre principios doctrinales y organizativos, el sistema atiende las necesidades de salud de la población, enfocándose en la promoción y prevención de problemas de salud. En este contexto, la enfermería juega un papel esencial, actuando en la primera línea de los servicios de salud y ofreciendo cuidados a las personas.

Palabras clave: Sistema Único de Salud; Política de Salud; Derecho a la Salud Pública; Enfermería de Salud Pública.

RESUMO

Objetivo: Discutir, a partir de uma análise reflexiva, a força motriz do Sistema Único de Saúde nesses 34 anos e a atuação da enfermagem como parte desse processo de fortalecimento da saúde pública. **Métodos:** Estudo teórico-reflexivo, desenvolvido a partir da análise de bibliografias existentes. Para seleção dos estudos, realizou-se uma busca nas bases de dados: *Scientific Electronic Library Online*, Literatura Latino-Americana e do Caribe em Ciências da Saúde e documentos disponíveis no *website* do Ministério da Saúde, entre agosto e outubro de 2024. Após o levantamento do material, procedeu-se a leitura reflexiva, organização e categorização, com base na análise temática de Minayo. **Desenvolvimento:** Com a leitura, interpretação e o conhecimento empírico dos autores sobre a temática, organizou-se duas categorias: Categoria 1. O SUS como resposta de saúde pública para o povo brasileiro; Categoria 2. SUS e enfermagem: Construindo juntos a saúde pública. **Considerações Finais:** Nesses 34 anos de existência e operacionalização, o Sistema Único de Saúde se apresenta como um ponto de referência na trajetória da saúde pública. Construído sob princípios doutrinários e organizativos, o sistema atende às necessidades de saúde da população, com foco na promoção e prevenção dos agravos em saúde. Nesse contexto, a enfermagem desempenha um papel essencial, atuando na linha de frente dos serviços de saúde e na oferta de cuidado aos indivíduos.

Palavras-chave: Sistema Único de Saúde; Política de Saúde; Direito à Saúde Pública; Enfermagem em Saúde Pública.



INTRODUCTION

Through the Constitution of the Federative Republic of Brazil, the Unified Health System (SUS) was established in the country in 1988, designed as a response to the health crisis that the country was facing, as a result of the pension reform and the political movement that sought democratization, better human conditions and the guarantee of social rights.⁽¹⁾

The SUS is anchored on three fundamental principles, the first being universality, which ensures the right to health for all citizens, regardless of race, ethnicity, gender or any other factor. The second is equity, which seeks to guarantee fair and equal access to health services, considering the different needs of the population. The third is comprehensiveness, which allows the health system to serve the individual in a complete manner, promoting prevention, promotion and recovery of health.⁽²⁾

The support of the SUS has a solid foundation in the Constitution, being supported by several organizations and associations. Communities in the 27 states have guaranteed access through congresses and councils. In addition, the system also relies on the collaboration of educational institutions, which expand access to information, enable the development of skills, promote understanding and dissemination of principles and guidelines, and combine knowledge to ensure that those involved act as advocates for the system.⁽³⁾

In this segment, the SUS can be considered one of the largest and most complex public health services in the world, offering health care services ranging from primary to tertiary levels. Public health was defined by the World Health Organization as the science and art of preventing diseases and injuries, and reinforcing the measures necessary to prolong the life of the population. The SUS is the most powerful and strategic pillar in public health, which allows for better accessibility to the population in all health problems. Furthermore, it has the duty to control diseases and create specific management strategies, as explicitly stated in the Federal Constitution.⁽⁴⁾

When it comes to public health, nursing stands out as one of the essential professions for the promotion, protection and recovery of health. Within the strategy of ensuring the proper functioning of the public health network, nurses play a crucial role, being increasingly valued in the systematization of care, in assisting patients, in monitoring the health-disease process and in managing work teams.⁽⁵⁾

Nursing has gained increasing importance in the performance of Health Systems, being valued both for its professional competence and for its contribution to the implementation and support of health policies, in addition to playing a crucial role in the management of these systems. In the field of public health, nursing acts creatively in health education, through the planning and development of activities aimed at promoting health, which leads to the active



participation of the community in care strategies. Thus, its role extends to the management and promotion of public policies that favor a more effective and inclusive health system.⁽⁶⁾

The strong connection between nursing and the SUS can be seen in Primary Health Care (PHC), a setting where nurses gain greater autonomy and recognition. The creation of the SUS represented an achievement for everyone, and for nursing, it brought significant benefits, such as multifunctional performance, greater professional appreciation and training, allowing nurses to respond more effectively to the demands of the population.⁽⁷⁾

In light of these considerations, the study aims to discuss, based on a reflective analysis, the driving force of the SUS in these 34 years and the role of nursing as part of this process of strengthening public health.

METHODS

This theoretical-reflective study was developed based on theoretical and philosophical approaches.⁽⁸⁾ The study was developed based on the following question: How has the historical trajectory of the Unified Health System (SUS) over its 34 years revealed advances and challenges, and how has nursing's role been central to its consolidation and strengthening?

The question that underpinned this theoretical-reflective study emerged from a discussion about the leading role of nursing in the process of building the Unified Health System (SUS) as a public policy, a historic

milestone for community health in Brazil. This discussion took place as part of the Final Project II course of the Bachelor's Degree in Nursing program at a private higher education institution in the southern region of the country, and involved the mediation of a faculty advisor and the participation of two students.

The search for the material that served as a basis for the construction of this reflection was carried out between August and October 2024, through the following databases: Scientific Electronic Library Online (SciELO) and Latin American and Caribbean Literature in Health Sciences (LILACS), as well as documents available on the website of the Ministry of Health. For the selection, the descriptors authorized by the Health Sciences Descriptors (DeCS) were used, namely: Unified Health System; Health Policy; Right to Public Health; Public Health Nursing.

After selecting the material, reflective reading was carried out, highlighting the crucial points to support this theoretical reflection. The information extracted from the studies was organized according to Minayo's thematic analysis.⁽⁹⁾ Based on the thematic analysis, two categories were created, which are described in the development topic.

The reflections presented were developed based on the theoretical and conceptual aspects addressed by the studies, as well as on the authors' impressions, derived from their understanding of the topic and empirical experience. It is worth noting that this essay does



not intend to exhaust the subject, but rather to open space for future philosophical discussions and theoretical deepening by other researchers. Furthermore, as it is a literature review, submission to or approval by a Research Ethics Committee (REC) was not necessary.

DEVELOPMENT

Based on the reading of the material selected to support this theoretical-reflective study, it was possible to affirm that there are different ideological paths regarding the multiple approaches and concepts regarding public health. Despite this perception, regardless of the path followed by the authors, it is consensually noted that the SUS continues to be the greatest public health response for the Brazilian people.

Category 1. The SUS as a health response for the Brazilian people

As a public policy, the SUS is part of all areas of healthcare, to provide better access to everyone, especially to users who do not have greater financial means. The system continues to prove to be the greatest success for the people, as seven out of every ten Brazilians use the public healthcare service.⁽⁷⁾

For improvements to occur in the SUS, the political power, together with the three branches of government (executive, judicial and legislative) must pay closer attention to the system, so that it can expand services, serving

the entire population with excellence and consolidating national healthcare, in the search for improving the quality of life of the Brazilian population. The National Health Council (CNS) works actively, encouraging society to demand government positions and initiatives so that it can expand and strengthen ties, ensuring the necessary communication with a single purpose: strengthening national health policies.⁽¹⁰⁾

The system has innovative institutional political engineering that has developed and made possible the creation of basic operational standards, development plans, programs aimed at health promotion, investment and sustainability, which leads to the advancement of the prevention of various population disease problems. Brazil also relies on the evolution of health information systems, which have been essential for monitoring and analyzing policies, projects and programs.⁽³⁾

In this regard, the Organic Health Laws emerged, with the aim of directing the health system in the national territory. The first Organic Law, No. 8,080, of September 19, 1990, regulates and establishes the conditions for the promotion, protection and recovery of health in Brazil, which makes health a right for all and a duty of the state. It is worth highlighting the universality, comprehensiveness and equity described in the law as pillars of this health system.⁽²⁾

Therefore, discrimination and dehumanizing care are not justified. The health



services provided are intended to meet the health demands of the population in a comprehensive and constant manner. Promoting social justice in health provides better access and equal care for all citizens.

In Brazil, a percentage of the population is made up of migrants, refugees and stateless people. The SUS is not just an achievement for Brazilians, but for all immigrants, regardless of race, color or nationality. All of this explains the universality of the public health system. In this context, it is worth highlighting the welcoming principle of the system, which gives migrants the right to access services, enabling a dignified life for this group.⁽¹¹⁾

After the first Organic Law, marked by the organization and popular participation in the SUS, the second Organic Law, No. 8,142, of December 28, 1990, was instituted. This Law discusses two collegiate bodies for active participation by the population, namely through the Health Conferences, held every four years, with representatives of social segments, which proposes guidelines to assess the real health situation, and the Health Council, which is a permanent and deliberative body made up of the government, health professionals, users and service providers who work on the elaboration and control of health policies.⁽¹²⁾

Furthermore, Law 8,142/90 provides for the creation of the National Health Fund (FNS), which determines how health resources will be allocated, whether expenses, investments or public health costs. The transfer is made by

direct debit, with 70% going to the municipalities. The law aims to ensure the presence and commitment of the population in healthcare, guaranteeing transparency in the coordination and management of resources, always seeking quality and efficiency of services, democratizing public healthcare in Brazil.⁽¹²⁾

Despite the progress and consolidation of the SUS in these 34 years of existence and operation, the system faces challenges. In mid-2016, after the impeachment of President Dilma Rousseff and the rise of Michel Temer, there was a setback in healthcare policies, actions that were contrary to the principles of the SUS.

After Temer took office, measures were implemented that hindered public healthcare. During his administration, there was tension between health reform and the privatization of health care, with actions that made current policies inconsistent. Among them, the most notable were Ordinance No. 1,482, which aims to discuss an "Affordable Health Plan", and the approval of Constitutional Amendment (PEC) 241, which froze public spending on health and education for 20 years. These actions resulted in insufficient capital in key areas and limitations on social programs, causing the SUS to become precarious and the system to feel like it was failing. During his term, it was observed that constitutional rights were violated through policies implemented that contributed to the privatization of the system, going against the principles of the SUS.

Despite facing challenges, the SUS continues to bring benefits to the population through the health policies and programs implemented. These achievements pave the way for everyone to be able to use health services without bureaucracy and without prejudice. It is worth noting that the public network strengthens the largest percentage of goods and services provided to the population. This gigantic work plays a crucial role in the organization of the public sector and in the multisectoral reform of health.⁽¹⁴⁾

Category 2. SUS and Nursing: Building Public Health Together

Nursing is fundamental to the structure and strategy of maintaining an organization in the SUS within public health, deserving prominence in this process of strengthening the system. The development of nursing practices, systematization and care allow the profession to be recognized and valued through the care provided. In addition, the SUS provides space for nursing professionals to be more autonomous in their activities, given their technical and scientific training.⁽¹⁶⁾

According to Thumé et al., (2018),⁽¹⁶⁾ in addition to bedside care, nurses stand out in the development of actions aimed at health education in communities. Health promotion, protection and recovery services are masterfully managed by this professional, in line with the principles of the SUS, such as universality, equity

and comprehensiveness, described in Law 8.080/90.

Within the scope of the SUS, nurses play an important role in the management of units that have a Family Health Strategy team. The multifaceted perspective allows for a deeper understanding of local needs. The role of this professional is widely discussed and includes functions such as team coordination, motivation of multidisciplinary work and care management. Their actions are focused on the health needs of the community. Thus, the nurse must seek to identify and meet the main health demands of the population in their area.⁽⁷⁾

The nurse in a managerial role combines democratic leadership, efficient administration and health care, strategically integrating technologies. They develop approaches that promote a collaborative environment, valuing team participation and enabling shared decision-making, respecting everyone's opinions and contributions. In addition, when managing resources and processes, the nurse uses technologies to optimize care, improve communication and ensure quality of care. The development of management skills is essential to improve the management and quality of services provided.⁽¹⁷⁾

In Basic Health Units, nurses have the autonomy to conduct nursing consultations and perform actions aimed at women's health, such as gynecological exams, cervical cancer screening, prenatal care and contraception, all regulated by the law on professional practice,



although with reservations. In addition, they can prescribe antibiotics for urinary infections and discharge, perform rapid tests for HIV, offer post-exposure prophylaxis and treat syphilis, assess and treat wounds. In short, they can develop actions and conduct that lead them to reaffirm the autonomous stance that the SUS has brought to Brazilian nursing.⁽¹⁸⁾

Health education, which is seen as an essential tool for transforming the population's quality of life, through guidance and training on health conditions, through educational strategies adapted and aimed at the community, contributes to a better understanding of existing diseases, in addition to encouraging healthy lifestyle habits. Educational practices still allow the population to actively participate in self-care and health management. It is worth highlighting the need for a holistic approach, which makes a difference in the care provided.⁽¹⁹⁾

The role of nurses in PHC still stands out for their ability to prescribe medications according to the clinical needs of patients. This autonomy, achieved in line with their professional skills, is a reflection of the changes implemented by the Ministry of Health since the creation of the Strategy in 1994. The redirection of public health practices allowed nurses to participate more in care decisions, strengthening the bond with patients and improving the quality of care provided in primary care.⁽²⁰⁾

Study Limitations

This study has some limitations inherent to its theoretical-reflexive nature. The analysis was based on previously selected bibliographic material, which limits the scope of interpretations to the available and accessible works at the time of the research. It is also recognized that it places greater emphasis on the potential of the SUS and the contribution of nursing to its strengthening, failing to delve into the challenges and weaknesses that permeate this historical process. Despite this limitation, the study demonstrates the potential of valuing the strategic role of nursing and the SUS itself, highlighting its historical advances and contributing to strengthening critical reflection on public health in Brazil.

FINAL CONSIDERATIONS

The SUS represents a milestone in the history of Brazilian public health. The three essential principles of the system, universality, equity and comprehensiveness, constitute the basis for health care that seeks to meet the needs of all citizens, regardless of their social status or geographic location. The support of various organizations and collaboration with educational institutions further strengthen the reach and effectiveness of the system, which leads to awareness of the right to health.

Nursing is vital to the structure of the SUS, being one of the main professionals responsible for implementing health services and promoting patient care. The recognition and



appreciation of the profession has grown, reflecting its importance not only in direct care, but also in the management and planning of health policies. The work of nurses in PHC demonstrates their ability to respond to the demands of the population in an autonomous and effective manner, contributing to a more dynamic and inclusive health system. Considering the training and ongoing qualification of nursing professionals is, therefore, fundamental to guarantee the quality and effectiveness of the SUS, ensuring that it continues to be an accessible and excellent public health model for all Brazilians.

REFERENCES

1. Ferreira GA, Ferreira CA. O Sistema Único de Saúde (SUS) brasileiro: trajetória e perspectivas. RDD [Internet]. 15 jun 2023 [cited 2024 Nov 8];32(59):e11861. Available from: <https://www.revistas.unijui.edu.br/index.php/revistadireitoemdebate/article/view/11861>
2. Brasil. Lei nº 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. Diário Oficial da União. 1990 set 19; [cited 2024 Nov 8]. Available from: http://www.planalto.gov.br/ccivil_03/leis/l8080.htm
3. Paim JS. Sistema Único de Saúde (SUS) aos 30 anos. Ciênc saúde coletiva [Internet]. 2018 Jun; 23(6):1723–8. Doi: <https://doi.org/10.1590/1413-81232018236.09172018>
4. Brasil. SUS é modelo de saúde pública para o mundo. Ministério da Saúde. 2024 Apr 3 [cited 2024 Oct 30]. Available from: <https://www.gov.br/saude/pt-br/assuntos/noticias/2024/abril/sus-e-modelo-de-saude-publica-para-o-mundo>
5. Lopes OCA, Henriques SH, Soares MI, Celestino LC, Leal LA. Competências dos enfermeiros na estratégia Saúde da Família. Esc Anna Nery [Internet]. 2020;24(2):e20190145. Doi: <https://doi.org/10.1590/2177-9465-EAN-2019-0145>
6. Ribeiro ABA, Reis RP, Bezerra DG. Gestão em saúde pública: um enfoque no papel do enfermeiro. RBCS [Internet]. 16 mar 2016 [cited 2024 Nov 8];19(3):247-52. Available from: <https://periodicos.ufpb.br/ojs/index.php/rbcs/article/view/22126>
7. Silva MCN, Machado MH. Sistema de Saúde e Trabalho: desafios para a Enfermagem no Brasil. Ciênc saúde coletiva [Internet]. 2020 Jan; 25(1):07–13. Doi: <https://doi.org/10.1590/1413-81232020251.27572019>
8. Fook J. Developing critical reflection as a research method. In: Higgs J, Titchen A, Horsfall D, Bridges D, editors. Creative spaces for qualitative researching. Springer; 2011. p. 55-64. Available from: <https://link.springer.com>
9. Minayo MCS. O desafio do conhecimento: Pesquisa qualitativa em saúde. 14. ed. São Paulo: Hucitec; 2014.
10. Machado CV, Lima LD, Baptista TWF. Políticas de saúde no Brasil em tempos contraditórios: caminhos e tropeços na construção de um sistema universal. Cad Saúde Pública [Internet]. 2017;33:e00129616. Doi: <https://doi.org/10.1590/0102-311X00129616>
11. Brasil. Portaria GM/MS nº 763, de 26 de junho de 2023. Dispõe sobre a Política Nacional de Saúde para Migrantes e Refugiados. Diário Oficial da União. 2023 Jun 26 [cited 2024 Oct 30]. Available from: <https://www.in.gov.br/en/web/dou/-/portaria-gm/ms-n-763-de-26-de-junho-de-2023-493166345>
12. Brasil. Lei 8.142, de 28 de dezembro de 1990. Dispõe sobre a participação da comunidade na gestão do Sistema Único de



Saúde (SUS) e sobre as transferências intergovernamentais de recursos financeiros na área da saúde e dá outras providências. Diário Oficial da União. 1990 Dec 31 [cited 2024 Nov 8]. Available from:

https://servicos2.sjc.sp.gov.br/media/116799/microsoft-word-lei_n_8142.pdf

13. Vieira F, Pucci de Sá R, Benevides R. Os impactos do novo regime fiscal para o financiamento do Sistema Único de Saúde e para a efetivação do direito à saúde no Brasil: Nota Técnica nº 28. Brasília-DF: Ipea; CONASS; 2016. Available from:

https://www.conass.org.br/wp-content/uploads/2016/09/NOTA_TECNICA_IPEA241.pdf

14. Couttolenc B, Gragnolati M, Lindelow M. Twenty Years of Health System Reform in Brazil: An Assessment of the Sistema Único de Saúde. Directions in Development–Human Development, Washington, D.C.: The World Bank; 2013.

15. Regis CG, Batista NA. O enfermeiro na área da saúde coletiva: concepções e competências. Rev Bras Enferm [Internet]. 2015 Sep; 68(5):830–6. Doi: <https://doi.org/10.1590/0034-7167.2015680510i>

16. Thumé E, Fehn AC, Acioli S, Fassa MEG. Formação e prática de enfermeiros para a Atenção Primária à Saúde - avanços, desafios e estratégias para fortalecimento do Sistema Único de Saúde. Saúde debate [Internet]. 2018 Sep; 42(spe1):275–88. Doi: <https://doi.org/10.1590/0103-11042018S118>

17. Santos EP, Martins ETJ, Capellari C, Moraes RTR. O protagonismo do enfermeiro na gestão das unidades de saúde da família: cenários e desafios. Enferm. Brasil. 2023;22(6):1025-1041. Available from: <https://convergenceseditorial.com.br/index.php/enfermagembrasil/article/view/5141/8879>.

18. Geremia DS, Oliveira JS, Vendruscolo C, Souza JB, Santos JLG, Paese F. Autonomia profissional do enfermeiro na atenção primária à

saúde: perspectivas para a prática avançada. Enferm Foco. 2024;15(Supl 1):e-202417SUPL1.

19. Kirsch GH, Slob EMGB. Atuação do enfermeiro na educação em saúde da população. Rev Saúde e Desenvolvimento [Internet]. 2018;12(13): Available from: <https://www.revistasuninter.com/revistasauade/index.php/saudeDesenvolvimento/article/view/1008>

20. Martiniano CS, Andrade PS, Magalhães FC, Souza FF, Clementino FS, Uchôa SAC. Legalization of nurse prescribing of medication in Brazil: history, trends and challenges. Texto contexto - enferm [Internet]. 2015 Jul; 24(3):809–17. Doi: <https://doi.org/10.1590/0104-07072015001720014>

Funding and Acknowledgements

Nothing to declare

Authorship criteria (author contributions)

The designation of authorship should be based on the deliberations of the ICMJE, which considers an author as someone who:

Pedro Leite de Melo Filho: 1. contributes substantially to the conception and/or planning of the study;

Isabela Ester Luz Alvez dos Santos: 2. in obtaining, analyzing and/or interpreting the data;

Pedro Leite de Melo Filho; Malounsie Joseph; Isabela Ester Luz Alvez dos Santos: 3. as well as in the writing and/or critical review and final approval of the published version.

Declaration of conflict of interest

Nothing to declare.

Scientific Editor: Ítalo Arão Pereira Ribeiro.
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