


Millenium, 2(Edição Especial Nº22)



DESAFIOS E OPORTUNIDADES DE RECURSOS HUMANOS EM SAÚDE EM PORTUGAL: SETOR PÚBLICO E PRIVADO
CHALLENGES AND STRATEGIES OF HUMAN RESOURCES FOR HEALTH IN PORTUGAL: PUBLIC AND PRIVATE SECTORS
DESAFÍOS Y ESTRATEGIAS DE RECURSOS HUMANOS PARA LA SALUD EN PORTUGAL: SECTORES PÚBLICO Y PRIVADO

Mário Ribeiro^{1,2,3,4}  <https://orcid.org/0009-0009-7102-4943>

Nuno Araújo^{1,2,5,6}  <https://orcid.org/0000-0002-0586-0873>

¹ CESPU - Cooperativa de Ensino Superior Politécnico e Universitário, Vila Nova de Famalicão, Portugal

² Unidade de Investigação em Inteligência Artificial e Saúde, Vila Nova de Famalicão, Portugal

³ Nova School of Business and Economics, Lisboa, Portugal

⁴ Nova SBE Health Economics & Management Knowledge Center, Lisboa, Portugal

⁵ ISCTE – Instituto Universitário de Lisboa, Lisboa, Portugal

⁶ BRU-ISCTE - Business Research Unit, Lisboa, Portugal

Mário Ribeiro – mario.ribeiro@ipsn.cespu.pt | Nuno Araújo – nuno.araujo@ipsn.cespu.pt



Corresponding Author:

Mário Ribeiro

Dr. Alfredo Faria Magalhães

4430-384 – Oliveira do Douro - Portugal

mario.ribeiro@ipsn.cespu.pt

RECEIVED: 06th January, 2025

REVIEWED: 07th February, 2026

ACCEPTED: 30th March, 2026

PUBLISHED: 02nd June, 2026

DOI: <https://doi.org/10.29352/mill0222e.39826>

RESUMO

Introdução: O mundo está a mudar e existem vários desafios relacionados com a Força de Trabalho em Saúde, como a escassez de recursos humanos, a distribuição desigual entre os territórios e a transformação digital.

Objetivo: Identificar os principais desafios e estratégias utilizadas pelos intervenientes nos setores público e privado, bem como por especialistas, para melhorar a gestão de recursos humanos em saúde em Portugal.

Métodos: Este estudo utiliza uma abordagem qualitativa, descritiva e exploratória através de entrevistas semiestruturadas. Oito participantes foram selecionados utilizando uma técnica de amostragem não probabilística por conveniência. Os investigadores mantiveram as entrevistas e transcrições confidenciais, apenas acessíveis por estes.

Resultados: A análise resultou em 11 desafios que agrupámos em 5 categorias distintas: Recrutamento e Contratação; Atração, Fixação e Retenção; Condições de Trabalho; Desafios para o Futuro e Orientações para a Liderança. Adicionalmente, os participantes delinearão 50 estratégias que podem contribuir para resolver o problema.

Conclusão: Entre os desafios e estratégias identificados, os que mais se destacaram foram o acesso à tecnologia e à liderança. Além disso, foram mencionadas outras soluções, como flexibilidade de contratos, contratação baseada em perfis de trabalho, centros de responsabilidade integrados, entrevistas de saída, planeamento da reforma e psicólogo digital, que devem ser objeto de investigação adicional. É claro que os recursos humanos em saúde são um problema complexo que não depende de uma única solução, mas sim de um conjunto de ações que, apenas em conjunto, conseguem uma resolução real e satisfatória (recomendo eliminação de siglas do resumo, exceto se o seu reconhecimento for geral, como por exemplo PubMed, CINAHL, etc.).

Palavras-chave: força de trabalho em saúde; recursos humanos em saúde; planeamento da força de trabalho em saúde; políticas de saúde

ABSTRACT

Introduction: The world is evolving, and several challenges are affecting the health workforce, including shortages of human resources, unequal distribution across territories, and digital transformation.

Objective: To identify the main challenges and strategies used by stakeholders in the public and private sectors, as well as experts, to improve human resources for health management in Portugal.

Methods: This qualitative, descriptive, and exploratory study was conducted through semi-structured interviews. Eight participants were selected using a non-probabilistic convenience sampling technique. All recordings and transcripts were kept confidential and were accessible only to the research team.

Results: The analysis identified 11 challenges, grouped into five categories: recruitment and hiring; attraction, retention, and workforce stability; working conditions; future challenges; and leadership strategies. Additionally, participants outlined 50 strategies that may contribute to addressing these issues.

Conclusion: Among the identified challenges and strategies, access to technology and leadership emerged as particularly relevant. Other proposed solutions included contract flexibility, recruitment based on job profiles, integrated responsibility centers, exit interviews, retirement planning, and digital psychological support, which warrant further investigation. The human resources for health is a complex issue that requires a multifaceted approach rather than a single solution.

Keywords: health workforce; human resources for health; health workforce planning; health policy

RESUMEN

Introducción: El mundo está evolucionando y existen varios desafíos que afectan a la fuerza de trabajo en salud, como la escasez de recursos humanos, la distribución desigual entre territorios y la transformación digital.

Objetivo: Identificar los principales desafíos y estrategias utilizadas por los actores de los sectores público y privado, así como por expertos, para mejorar la gestión de los recursos humanos en salud en Portugal.

Métodos: Este estudio cualitativo, descriptivo y exploratorio se llevó a cabo mediante entrevistas semiestructuradas. Ocho participantes fueron seleccionados utilizando una técnica de muestreo no probabilístico por conveniencia. Todas las grabaciones y transcripciones se mantuvieron confidenciales y fueron accesibles únicamente para el equipo investigador.

Resultados: El análisis identificó 11 desafíos, agrupados en cinco categorías: reclutamiento y contratación; atracción, retención y estabilidad de la fuerza laboral; condiciones de trabajo; desafíos futuros; y estrategias de liderazgo. Además, los participantes propusieron 50 estrategias que pueden contribuir a abordar estos problemas.

Conclusión: Entre los desafíos y estrategias identificados, el acceso a la tecnología y el liderazgo destacaron como especialmente relevantes. También se mencionaron otras soluciones, como la flexibilidad contractual, la contratación basada en perfiles profesionales, los centros de responsabilidad integrados, las entrevistas de salida, la planificación de la jubilación y el apoyo psicológico digital, que requieren mayor investigación. Los recursos humanos en salud son un problema complejo que requiere un enfoque multifactorial, más allá de una única solución.

Palabras clave: fuerza laboral en salud; recursos humanos para la salud; planificación de la fuerza laboral en salud

DOI: <https://doi.org/10.29352/mill0222e.39826>

INTRODUCTION

The global population's health needs have significantly increased over the last decade. This is primarily due to the demographic shift with an aging population and the rise in chronic diseases (WHO, 2023). This rise in demand and health needs has clashed with the already strained health institutions and professionals. It is estimated that 400,000 new doctors will be needed in 32 OECD countries, and 2.5 million more nurses in 23 OECD countries by 2030 (WHO, 2016 & WHO, 2022). The World Health Organization (WHO) projected that there would be a shortage of approximately 15 million health professionals globally, predominantly in developing countries, by the same year (WHO, 2016).

The World Health Organization Regional Office's report "Health and Care Workforce in Europe: time to act" highlights that the main challenges the Human Resources for Health (HRH) will face in the future include the shortage of human resources, unequal distribution across territories, difficulties in incorporating skill-mix, inefficient development of competencies, and digital transformation (WHO, 2022). Despite the expected challenges, it is crucial to remember that the aging of doctors (over 40% are older than 55 in 13 European countries), the progressive increase in absences and resignations (62% increase during the COVID-19 pandemic), mental health issues among health workers (52% reported experiencing burnout), and the rising emigration of health professionals are factors that should be considered when assessing and planning for the future HRH needs (Azzopardi-Muscat N. et al., 2023).

The projection that the problem will worsen if nothing changes is real, and Portugal is no exception (Barros P. & Eduardo C., 2022). It is important to understand that the data presented are similar to the available data on Portugal. Numerous studies, supported by expert and stakeholder opinions in the health sector, warn that focusing only on the number of health professionals will not solve the current and future problems (Azzopardi-Muscat N. et al., 2023 & Barros P. & Eduardo C., 2022). A diverse and attentive analysis of the multiple factors influencing HRH performance and sustainability is therefore needed, as current approaches appear insufficient to address existing and future challenges. Despite the unquestionable quality of health professionals and political efforts on various fronts, Portugal has not managed to maintain a positive and consistent evolution in multiple indicators of access to healthcare. The number of patients without an assigned family doctor has been increasing, with about 1,299,376 patients in April 2022 and over 1,675,663 in August 2024 without an assigned family doctor (Portal de Transparência do SNS, 2024).

The Portuguese Court of Auditors report clearly demonstrated a negative trend in access to oncological surgery between 2017 and 2020, with an exponential increase in the Maximum Guaranteed Response Times (TMRG) in Portugal (Tribunal de Contas, 2022). It also noted that the increase in surgical activity in the Portuguese National Health Service (PNHS) (4.8%) was not sufficient to meet the increase in demand (6%) (Tribunal de Contas, 2022). Similarly, 69% of patients already waiting for a priority consultation had exceeded the TMRG (Tribunal de Contas, 2022).

Nationally, the number of health workers in the PNHS in June 2023 compared to 2015 increased by over 25% (+30,424), totaling 150,422 (Ministério das finanças, 2024). It is easy to see that merely increasing the number of health professionals is not a solution, as there has been a simultaneous increase in health needs, migration of health workers, retirements, and shifts from the public to the private sector (Barros, P., & Eduardo, C., 2022). Therefore, it is imperative for health institution leaders to reflect and evaluate current management models, the working conditions experienced by health workers, and to benchmark innovative strategies that could enhance the retention and recruitment of new health professionals.

WHO Europe and Member States developed the "Health and Care Workforce Framework for Action 2023-2030" based on five pillars that guide the necessary transformation to address this problem (WHO, 2022). These five pillars are recruitment and retention through policies that improve working conditions and promote mental health, optimizing performance by increasing efficiency, building supply with the incorporation of new technologies in the training and development of health workers, investing and planning, highlighting the importance of improving information systems, physical conditions, training conditions, and effective HRH planning (WHO, 2022).

Different health institutions, whether private or public, have different management models with varying results, which are not always shared or publicized. Several factors have been identified that can negatively or positively influence the resolution of the HRH problem. It is crucial to develop studies like this to diagnose the problems experienced by those on the ground and share experiences and new management models that are already implemented or in the implementation phase, aiming for their resolution.

Given the above, this study aims to address the following research question: How are the current challenges of the health workforce experienced and addressed by key stakeholders in Portugal? Specifically, the objective of this study was to identify the main challenges, opportunities, and strategies used by stakeholders in the public and private sectors, as well as experts, to improve HRH management in Portugal.

DOI: <https://doi.org/10.29352/mill0222e.39826>

1. METHODS

1.1 Sample

This study uses a qualitative, descriptive, and exploratory approach through semi-structured interviews. The participants were selected using a non-probabilistic sampling technique for convenience. From a total of 12 participants invited by email, 8 responded positively and met at least one or more of the following inclusion criteria: recognized experience in health management and/or administration; holding significant professional positions in the public or private sector; academic experts with nationally and internationally recognized scientific work in the area of health workforce (HRH). The other three participants didn't respond to the invitation. The sample size was therefore determined by participant availability and accessibility within the researchers' professional network.

To protect and ensure the confidentiality of the participants who agreed to this interview, the names of the participants and the institutions they represent are not identified at any point in this work. Participants are only designated as: PU (Public Entity Participant), PRI (Private Entity Participant), and PA (Academic Participant).

1.2 Data collection instruments

The interview guide was constructed based on the most recent national and international scientific literature on the HRH and was guided by the five pillars identified in the "Health and Care Workforce Framework for Action 2023-2030" report, necessary for addressing this issue. The semi-structured interview is divided into four parts: the first part concerns the recruitment and hiring of the HRH, the second part addresses the attraction and retention of the HRH, the third part focuses on the working conditions of the HRH, and the last part discusses the future of the HRH.

1.3 Statistical analysis

The interviews were conducted between July and November 2023. All interviews were conducted online via the ZOOM digital platform. The participants were invited by email, in which the study's objectives and scope were explained, including that the interviews would be audio-recorded solely for transcription purposes, and written informed consent for participation under these conditions was requested. Only participants who confirmed their acceptance in response to this email were included. At the beginning of each interview, the study conditions were reiterated, and consent for participation and audio recording was reconfirmed verbally. Subsequently, the recordings were archived on the personal computers of the researchers, with only the researchers having access to them. The recordings were then transcribed using Microsoft Word® and subsequently inserted into ATLAS.ti® software (Qualitative Research Solutions) for data analysis and categorization. Four pre-analysis categories were defined based on the interview dimensions, and new post-analysis categories were defined that fit within the previous categories.

2. RESULTS

The sample consisted of eight participants with an average age of 48 years, ranging from 29 to 58 years old, four females and four males. The sample comprised professionals with degrees in Economics, Nursing, Pharmaceutical Sciences, and Psychology, with two holding master's degrees and two holding doctorates.

Among them, three belonged to the public sector, three to the private sector, and two to academia, holding the following professional positions: President of the Board of Directors, Member of the Board of Directors, Nurse Director, Human Resources Director, and University Professor.

The content analysis conducted allowed the association of post-analysis categories with the pre-analysis categories, including a new category and new subcategories, guiding the way to achieving the previously defined objective. For better understanding, Figure 1 illustrates the pre-analysis categories (in green), post-analysis categories, the new category (in dark blue), and subcategories (in light blue).

DOI: <https://doi.org/10.29352/mill0222e.39826>

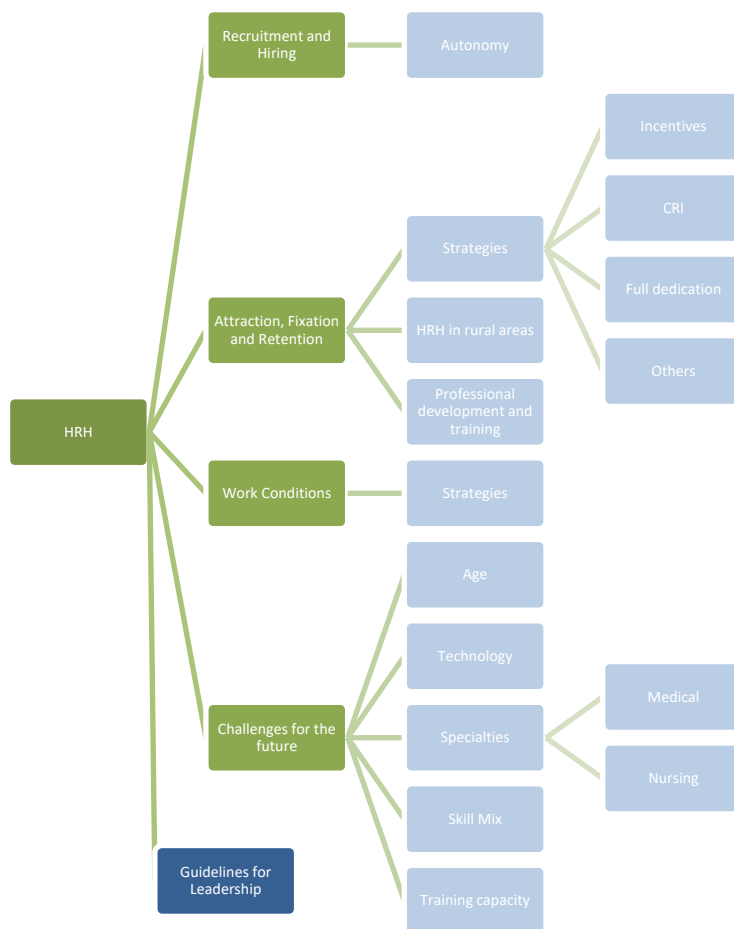


Figure 1 - Pre-analysis and post-analysis categories identified in the interviews.

2.1 Recruitment and Hiring

In the content analysis, regarding the category "Recruitment and Hiring," several participants identified the subcategory "Lack of autonomy" of public sector health institutions as one of the main problems.

"...we do not have autonomy in hiring...the processes are not agile...sometimes we do not need a healthcare professional...the difficulty lies in getting authorization to create new positions...there is excessive bureaucratization...the forms are always changing..." (PU1)

"Therefore, decision-making by the boards of directors in this matter is almost nonexistent..." (PU3)

"It can be truly limiting, especially if we want to meet very specific resource needs..." (PA1)

The increase in autonomy, combined with the reduction of bureaucratic processes, is identified by all participants as a key point for improving the recruitment and hiring process.

"...increasing autonomy would solve the most circumstantial part...autonomy is positive, it increases efficiency and also boosts team motivation..." (PRI1)

"I believe there should be total autonomy because those on the ground quickly sense the need." (PRI3)

It is also emphasized that other complementary measures need to be implemented in the recruitment and hiring process, including planning the institution's growth and production perspectives, defining a national and institutional human resources policy for proper planning of needs, flexibility in contract models, and focusing on hiring for specific job profiles.

"Autonomy should exist within the context of a budget...there is planning for the organization's growth perspectives..." (PRI2)

"I think first there needs to be a good human resources policy, and second, good planning of needs..." (PU3)

"...hospitals would have the autonomy to hire all the human resources foreseen in that budget...flexibility in the current contract models, to allow people more variety in their choices." (PA2)

"If I want to hire an administrative worker, I need to understand what kind of profile I am looking for...the first strategy for human resources planning is to identify the profiles for the vacancies..." (PRI3)

DOI: <https://doi.org/10.29352/mill0222e.39826>

2.2 Attraction, Fixation, and Retention

The content analysis of the participants speeches regarding the category "Attraction, Fixation, and Retention" identified three distinct but indispensable subcategories for addressing this issue: HRH in rural areas, professional development and training, and national strategies aimed in promoting the attraction, fixation, and retention of HRH.

The most agreed-upon strategy to address the health needs of the population and promote access to HRH in rural areas involves technology and digital health (telemedicine). However, decentralized consultations, the presence of higher health education institutions in these areas, the creation of incentives for fixing these professionals, and the creation of cooperation mechanisms between less differentiated and more differentiated health institutions, through the Local Health Unit (LHU) model, can be alternative paths to help attract and fix HRH.

"...through digital health...freeing up more expert doctors to increasingly conduct proximity teleconsultations..." (PU1)

"...telemedicine..." (PRI1; PA1)

"...now we have started decentralized consultations..." (PU2)

"...I think having nursing schools throughout the country helps a lot..." (PRI2)

"...good schools for the children, and young professionals are people who will inevitably start families..." (PA1)

"...I am in this hospital, performing simple operations that are not challenging...it might make sense to have some cooperation mechanisms in LHU..." (PA2)

"...one of the great advantages of LHU is the integrated management of HRH..." (PU3)

Regarding professional development and training, participants are clear about the importance of training and research, better organization of each individual's competencies to maximize their efficiency, providing greater autonomy, and establishing a professional development plan.

"...better organization of competencies...proposal for continuous professional development..." (PA1)

"...greater autonomy of HRH...focus on training and research..." (PA2)

Given the importance and complexity of the problem, the need to define and provide opportunities for other strategies is reinforced, such as the creation of incentives, the generalization of Integrated Responsibility Centers (CRIs), the possibility of full dedication, the use of friends benefits (training grants, support for children, and childcare), conducting exit interviews, regular satisfaction surveys, establishing a people and well-being department, reviewing and progressing careers, and promoting work-life balance measures (hybrid work and flexible hours).

"...I think full dedication can be a solution, but there are specialties for which it doesn't solve the problems...doctors earn more in the private sector than the extra they would earn with full dedication...reviewing careers...enabling work-life balance measures that promote hybrid work...has environmental impact...promoting innovation...we created a people and well-being department...CRIs can be a useful way to make teams perform better..." (PU1)

"...started by seeing and analyzing the results and comparing best practices...having career prospects...promoting friends benefits through the allocation of scholarships for children's education, training grants...I think full dedication can be good, especially for nurses..." (PRI2)

"Measuring indicators is not value-based healthcare; that is management...we should have a system that allows us to measure this type of indicator in a standardized way..." (PA2)

"I absolutely agree with financial incentives in health...the more the company earns, the more the employee earns...I agree with full dedication but not with exclusive dedication." (PRI3)

"...promote work flexibility..." (PA1)

"...remuneration conditions, career progression, having expectations of what they will do in the future, and training conditions...regularly conducting satisfaction surveys for healthcare professionals...conducting exit interviews...CRIs give more autonomy but also more responsibility." (PRI1)

"Perhaps I can make a CRI based on the average length of stay, days of stay, readmissions, to ensure that discharge quality is always present." (PU2)

2.3 Work Conditions

Regarding the category "Work Conditions," it became clear that some of the solutions proposed to increase the attraction, retention, and fixation of HRH can be considered complementary to improving work conditions. However, participants highlight the need to promote a good work environment, better organization, and efficient logistical management, facilitate access to and sharing of information, modernize equipment and spaces, and increase the absolute number of HRH. These strategies aim to improve the working conditions of HRH.

"Promotion of a good work environment..." (PRI1)

"Ensure organization, access to information, promote information sharing, communication..." (PRI2)

"...the pressure on healthcare professionals in the PNHS has been increasing...modernization of equipment and spaces...increase the absolute number of HRH..." (PA2)

2.4 Challenges for the Future

In the category "Challenges for the Future," it became clear that these are highly complex and were grouped into five subcategories: age and scarcity of HRH, training capacity and specialties, technology, skill mix, and mental health. Age, in turn, becomes a multiple challenge with the changing demographic paradigm due to the aging population, which implies increased

DOI: <https://doi.org/10.29352/mill0222e.39826>

health needs and a substantial increase in HRH, but also the high percentage of doctors over 50 years old, adding difficulties to the medical training capacity and subsequent reinforcement of HRH in an already weakened system. In this regard, participants propose reviewing the numerus clausus for medical school admissions, retirement planning, and extending the voluntary retirement age.

"...need to increase the numerus clausus of existing medical schools or increase the number of schools, after assessing needs...there are already hundreds of young Portuguese doing initial medical training abroad...Portugal was the only country in Europe without a private medical school...we lack anesthesiologists, pediatricians, obstetricians, psychiatrists, child psychiatrists..." (PRI1)

"...mapping resource needs every 10 years..." (PU1)

"...currently, at 70 years old, people are compulsorily retired..." (PA1)

"...shortage of HRH..." (PA2; PRI3)

The need to listen to and reflect on the medical specialty and its training capacity becomes evident after the interviews, being a common opinion across the various sectors analyzed. There should first be a consultation with various stakeholders and doctors, define concrete strategies for specialties with lower demand (e.g., internal medicine and general and family medicine), and review the process of granting training accreditation. Simultaneously, the need for a thorough review of the nursing career, increasing the salary differential for the specialty, making it more attractive, supporting training, and reviewing the quotas of nursing specialists is highlighted.

"...consult people about what they want, we are working without listening to people..." (PU1)

"...the medical council also needs to reflect on the existing vacancies and..." (PRI1)

"...in the SNS, there is a certain fog regarding this training capacity that needs to be clarified...it is not clear what training accreditation is and how training capacities are assigned...they should try to understand why general and family medicine and internal medicine are not attractive specialties...they end up being undervalued..." (PA1)

"It is also worth looking at the departments that are becoming deserted and trying to understand why...in nursing, specialists have few benefits for being specialists...a review of the nursing career is not just about the general career, it is about looking at the specialists' issue..." (PA2)

"...in nursing, there should not be a maximum number of specialists defined in Portugal, there should be a minimum..." (PU3)

"...when a nurse decides to specialize, there should always be collaboration between the team, management, and the institution...for doctors, there is an imbalance between the various specialties...the vacancies are in the specialties that pay less..." (PRI3)

Technology, although a means to enhance the efficiency and quality of care, according to the interviews, may not have the same level of adherence, and there is a need to invest in raising awareness and training professionals. Regarding skill sharing, the difficulty of its implementation is highlighted, but the positive effect this measure can have is unanimous, thus reinforcing better utilization of these skills.

"...look not at professions but at the skills of these professions...make a more efficient combination of skills...competence implies more responsibility...we should start ensuring that professionals are indeed working to the maximum of their skills...complement their skills with access to technology..." (PA1)

"...skill sharing between nurses, doctors, and other professionals..." (PA2)

"...we will have to start thinking about almost wall-less health institutions and thinking more digitally...different generations have different needs..." (PU1)

"The main challenge of human resources is technology and innovation, adaptation to technology...I fully agree with skill sharing..." (PRI2)

"...the challenge of task-shifting...only in Portugal does the doctor code the acts when in the rest of Europe a technician with a specialty in that area does..." (PRI1)

Finally, the need to identify strategies for promoting mental health, associated with the digital component, was reinforced after the interviews, with an emphasis on the importance of burnout and professional appreciation.

"One of the big problems is burnout...need for concrete strategies..." (PRI1; PU1; PA1)

"Easy access to a psychologist through digital means..." (PU2)

"...the person must feel fulfilled in their role..." (PRI1)

2.5 Guidelines for Leadership

Leadership is a key point for the success in implementing any measures, according to several participants. Thus, they emphasize the need for current leaders to understand the history of the place they will lead, the culture, and the people who are part of it. Additionally, the importance of communication is highlighted, as well as the incorporation of measures that promote increased satisfaction, motivation, and resilience of the HRH. They suggest the use of the Balanced Scorecard model with four perspectives (professional thinking and development, process, clients, and financial), knowing the ambitions of their professionals, and conducting diagnostic questionnaires for professionals entering and leaving the institution.

DOI: <https://doi.org/10.29352/mill0222e.39826>

"The first thing we need to understand is the history of where we are, the culture of where we are, and the people we work with... But to bring people around a goal, there is one thing I know we must be able to do, which is to communicate. We must know how to communicate who we are, where we are, and where we want to go." (PU1)

"In our strategic plan, we use the Balanced Scorecard with the four perspectives: professional thinking and development perspective, process perspective, client perspective, and financial perspective... Motivation, satisfaction, productivity, and resilience are present here and are key elements." (PU3)

"There must be continuous knowledge by the leadership of what the professionals aspire to... Conduct exit interviews but also interviews while people are working with us... Interviews after being hired at short intervals to make a difference... The 'farms' within the services must cease to exist; we all work for a common good." (PRI3)

For a better understanding, table 1 presents a summary of the results, including 5 categories, 11 subcategories, and 50 suggestions for possible solutions for each.

Table 1 - Summary of the most promising solutions highlighted by the participants.

Category	Subcategory	Solution	
Recruitment and hiring	Autonomy;	Streamlining processes Financing based on growth and production planning National and institutional HRH policies Contract flexibility and changes Hiring based on job profiles	
Attraction, Retention and Fixation	National Strategies (Incentives; IRCs; Full-Time Dedication; Others):	Autonomy Creation of incentives Full-time dedication Integrated Responsibility Centers (IRCs) Friends Benefits Work-Life Balance measures People and well-being management Exit interviews Regular satisfaction surveys Career review and progression	
		Professional training and development;	Cooperation mechanisms between institutions (Health, Universities, Private Companies) Access to Innovation, training and research Professional development projects Digital health (Telemedicine)
			HRH in rural areas;
Working conditions	Strategies;	Good working environment New work organization models Efficient logistical management Access to technology and information sharing Modernization of equipment and spaces Increasing the absolute number of HRH	
Challenges for the future	Age and HRH shortage;	Review of medical school admission numbers Retirement planning Extension of voluntary retirement age Specific strategies for less sought-after medical specialties	
		Training capacity and Specialties;	Review of the process for granting training suitability Nursing career review Increasing the pay differential for specialties Review of specialist nursing quotas
	Competency sharing;		Listening to stakeholders and health professionals Review of professional competencies
	Technology;	Improve access to technology Support for professional training in innovation and technology	
	Mental health;	Mental health promotion strategies Digital psychologist Measures to enhance a good working environment	
Leadership guidelines	Strategies;	Knowing the history, culture, and people Effective communication Measures to increase HRH satisfaction, motivation, and resilience Balanced scorecard with four perspectives (thought and professional development, process, users, and financial) Knowledge of the ambitions of their professionals Interviews with professionals (those entering the institution and those choosing to leave)	

DOI: <https://doi.org/10.29352/mill0222e.39826>

Limitations

Without detracting from the competitive value of the proposed solutions, the participants also identified several limitations that could affect their implementation. These limitations include short cycles for boards of administration, lack of financial autonomy (dependent on the Ministry of Finance), underfunding, lack of accountability, excessive working hours, burnout, demotivation, human resource shortages, lack of autonomy, administrative and bureaucratic difficulties, better organization, a dual labor market, and the need to review performance evaluation models.

"...changes in the board of administration cycles are short, 3 terms of 3 years... there are millions of euros in funded projects coming in, but how do we sustain the changes when the millions are gone?" (PU1)

"...they are very dependent on what the Ministry of Finance decides... the fact that they are bankrupt institutions (PNHS) and have no negotiating power... must always be accompanied by accountability..." (PA1)

"...lack of dialogue between various institutions... working 500 extra hours for several years in a row... burnout... demotivation... not having enough human resources... administrative and bureaucratic difficulties... lack of autonomy... underfunding..." (PRI1)

"...in some sectors of medicine, it seems to me that there is a lack of organization and structure, not so much a lack of resources, but of organization... performance evaluation models..." (PRI3)

"...dual labor market..." (PA2)

3. DISCUSSION

The completion of this study allowed for an understanding that the HRH problem in Portugal is complex, difficult to resolve, and influenced by a substantial number of variables. However, despite the difficulties, the Portuguese healthcare system has particularities that may contribute to solving this issue, whether through the existence of different management models like public-private partnerships, the reformulation of the national health system through the establishment of LHU, or the presence of internal management models such as CRIs. According to the participants, leadership and access to technology were identified as key points for its resolution.

Greater autonomy in hiring, positive progress in the process of debureaucratization, contract flexibility, and hiring based on job profiles are the four solutions that participants believe will have the most significant impact on streamlining the recruitment and hiring process of HRH. This is seen as one of the significant advantages of the private sector over the public sector, allowing for faster and more timely hiring. The need for greater administrative and organizational autonomy in healthcare institutions has been increasingly highlighted in recent studies, which emphasize its role in improving decision-making processes and workforce management (Krenyacz & Révész, 2025).

The retention of professionals is a central strategy for HRH stability, and according to the results found in this research, it is divided into three essential points: training and professional development, investment in HRH in rural areas, and the creation of national strategies (Fronreira I. et al., 2021). Several identified solutions align with retention interventions suggested by Fronreira I. et al. (2021), and McPake B. et al. (2024), such as mechanisms of cooperation between institutions that promote clinical rotations, investment in mentorship and training, the establishment of higher health education institutions in rural areas, creation of financial incentives or friend benefits like housing or transportation supplements, access to technology, innovation and modernization of equipment and spaces, work-life balance measures like promoting social interaction opportunities, schools for professionals' children, and career development opportunities. It is noted that jobs with greater autonomy and more access to training are favored by HRH (Pestana J., 2024). Monitoring HRH turnover is also suggested through the percentage of professionals who left the organization in the past 12 months, the demonstrated intention to leave by HRH over a period, and stability, which can be calculated by the number of HRH at the start and after 12 months at a specific location (Fronreira I. et al., 2021).

The expansion of CRIs and the new impetus for the implementation of full-time dedication are already part of the strategic planning of DE-SNS and the Ministry of Health of Portugal. However, contrary to what is stated in Decree-Law N^o. 103/2023 of November 7 (2023), which approves the legal regime of full-time dedication in the PNHS, participants highlight the need to include other professional groups in this model. It might be interesting to repeat this solution in other countries where the attraction, retention and fixation of HRH are the main problems. This is a more flexible management model that allows for increased autonomy, compensation, and satisfaction for healthcare professionals. Alkan et al. (2024) highlight the relevance of organizational conditions such as leadership, work environment, and professional recognition in shaping workforce retention. This is consistent with recent evidence indicating that these factors strongly influence both recruitment and retention of health professionals (Alkan et al., 2024). From a human capital perspective, inadequate investment in working conditions may lead to the loss of skilled professionals, with negative consequences for the efficiency and sustainability of the health system (Alkan et al., 2024).

Some of the solutions presented for the working conditions category also serve a dual function, potentially covering the categories of attraction, retention, and fixation of HRH (Azzopardi-Muscat N. et al., 2023). The deterioration of working conditions, through lack of investment in equipment and technology, and the absence of career progression, can make the profession less attractive (Pestana J., 2024). Investment in technology and innovation is a way to meet HRH needs and enhance the quality of care, but this must be accompanied by training and education for professionals to reinforce its use (Spetz J. & Quan A., 2021 & WHO, 2023).

DOI: <https://doi.org/10.29352/mill0222e.39826>

Various stakeholders identified exit interviews as a valuable approach for identifying solutions that are aligned with the needs of the HRH. On the other hand, there is a constant search to optimize and enhance the skills of each professional group, emphasizing the sharing of skills or task shifting. According to Meda F. et al. (2023), task shifting is a globally recognized strategy to address HRH challenges. The sharing of skills is driven by HRH scarcity, promotes more cost-effective care, and aims to counter increasing needs and difficulties in accessing healthcare (Fronteira, I. 2021).

The expected future challenges and possible solutions are mostly recognized and cross-sectoral, affecting both the public and private sectors. Although predictable, the national and international scientific community has not yet managed to avoid the negative impact that the high number of doctors over 55 years old will have on the healthcare system. In Italy, more than 55% of doctors are over 55 years old (OECD, 2023). Similarly, in Portugal, 47.9% of doctors registered with the order are over 50 years old, with 27% of them being over 65 (Ordem dos Médicos, 2023). The effect of this measure, resulting from several restrictions on the number of admissions to medical school in the past, is now beginning to reflect in the shortage of HRH in some geographic areas and may impact the quality of the training provided. The importance of the private sector in specialized medical training is increasing, but it is imperative that this growth is accompanied by effective regulation (McPake B. et al., 2024). New Solutions, such as reviewing medical school admission numbers through a national and international assessment of future HRH needs and implementing retirement planning for HRH, are two proposed measures that can have a global and sustainable impact in Portugal as well as in countries like Italy. PNHS England is already implementing similar solutions through the PNHS Long Term Workforce Plan (PNHS, 2023).

In terms of remuneration, between 2019 and 2021, there was a 0.8% increase in nurses' pay in Portugal compared to Hungary, which had a 12% increase over the same period (OECD, 2023). The same report notes that half of the countries, to value and differentiate specialist and non-specialist doctors, have significantly increased the salary gap between the two (OECD, 2023). Conversely, in Portugal, Costa Rica, and the United Kingdom, the difference between specialist and non-specialist doctors has decreased between 2011 and 2021 (OECD, 2023). Considering inflation, in 2021, the income of specialist doctors in Portugal was still below that practiced in 2011 (OECD, 2023).

Despite all the proposed solutions, leadership was the most challenging aspect highlighted by both public and private stakeholders. The appropriate leadership was viewed as the primary concern to effectively support all the other challenges and solutions presented. Effective HRH management inevitably requires skilled leadership in adapting the institution and professionals to complex environments, identifying and defining strategies capable of change with long-term applicability (Fronteira I. et al, 2020). Evidence shows that effective HRH management and retention strategies enhance cost-efficiency and organizational performance, reinforcing the view of health professionals as key human capital assets (Fauziyah et al., 2025).

Thus, it is clear that HRH is a complex problem that does not depend on a single solution but rather on a set of actions that, only as a whole, achieve a real and satisfactory resolution.

CONCLUSION

The health crisis currently unfolding in Portugal and around the world will continue to persist as long as attempts to resolve the HRH problem are made in isolation and through ideologically driven measures with little impact. Considering the proposed objective, the analysis of proposals shared by the public and private sectors allows us to infer that, despite having different management mechanisms, the solutions presented are mostly coincident and/or applicable, requiring the involvement of the entire institutional structure. Stakeholders emphasize the impact that technology and innovation can have on talent retention and improving the efficiency and quality of care. Furthermore, solutions such as contract flexibility, hiring based on job profiles, integrated responsibility centers, exit interviews, retirement planning, and digital psychologists are among the most frequently cited solutions, which may suggest a greater degree of disruption compared to the solutions present in the literature. However, it is clear that leadership can have an important role in the process of implementing the selected solutions. Accordingly with the PNHS Long Term Workforce Plan (2023), improving leadership, culture, and wellbeing will ensure that up to 130,000 fewer HRH leave the PNHS over the next 15 years. In this regard, more studies like this one should be conducted to engage all the stakeholders in the health sector, ensuring a greater number of participants, increased geographical diversity, and enhanced representation of professional groups. Only then will it be possible to plan effectively and undertake actions capable of facilitating real change.

ACKNOWLEDGEMENTS

We would like to recognize that Prof. Dr. Pedro Pita Barros made significant contributions to the review of the manuscript.

AUTHORS' CONTRIBUTION

Conceptualization, M.R. and N.A.; data curation, M.R.; formal analysis, M.R.; investigation, M.R.; methodology, M.R. and N.A.; project administration, M.R. and N.A.; resources, M.R. and N.A.; software, M.R.; supervision, N.A.; validation, M.R. and N.A.; visualization, M.R. and N.A.; writing—original draft preparation, M.R.; writing—review and editing, M.R. and N.A.

DOI: <https://doi.org/10.29352/mill0222e.39826>

CONFLICT OF INTERESTS

The authors declare no conflict of interests.

REFERENCES

- Alkan, E., Cushen-Brewster, N., & Anyanwu, P. (2024). Investigating healthcare workforce recruitment and retention: A mixed-methods study protocol. *BMJ Open*, 14(2), e074100. <https://doi.org/10.1136/bmjopen-2023-074100>
- Azzopardi-Muscat, N., Zapata, T., & Kluge, H. (2023). Moving from health workforce crisis to health workforce success: The time to act is now. *The Lancet Regional Health – Europe*, 35, 100765. <https://doi.org/10.1016/j.lanepe.2023.100765>
- Barros, P., & Eduardo, C. (2022). *Recursos humanos em saúde*. <https://shre.ink/LaJ5>
- Cruz, I. (2013). *Percursos da New Public Management num hospital EPE* [Master's thesis, ISCTE-IUL]. <http://hdl.handle.net/10071/9343>
- Decreto-Lei n.º 103/2023, de 7 de novembro. (2023). *Diário da República*. <https://files.diariodarepublica.pt>
- Fauziyah, S., Istiqomah, I., & Efendi, Y. (2025). Healthcare workforce management and economic performance: A systematic review of human resource strategies. *Jurnal Visi Manajemen*, 11(3), 317–325. <https://doi.org/10.56910/jvm.v11i3.834>
- Fronteira, I., Buchan, J., Poz, M., & Ferrinho, P. (2020). Leadership in HRH: Remembering the future? *Human Resources for Health*, 20, 38. <https://doi.org/10.1186/s12960-022-00738-9>
- Fronteira, I., Dussault, G., & Buchan, J. (2021). *Rethinking human resources for health: On the edge of the post-modern era*. Almedina.
- Krenyacz, E., & Révész, É. E. (2025). Consequences of centralized healthcare systems: Changing role and autonomy of hospital managers: Insights from a Hungarian case. *Journal of Health Organization and Management*, 39(9), 177–191. <https://doi.org/10.1108/JHOM-08-2024-0358>
- McPake, B., Dayal, P., Zimmermann, J., & Williams, G. A. (2024). How can countries respond to the health and care workforce crisis? Insights from international evidence. *International Journal of Health Planning and Management*, 39(3), 879–887. <https://doi.org/10.1002/hpm.3766>
- Meda, F., Cantarelli, P., & Vainieri, M. (2023). An overview of reviews: What do we know about task shifting and skill mix change in healthcare? *European Journal of Public Health*, 33. <https://doi.org/10.1093/eurpub/ckad160.808>
- Ministério das Finanças. (2024). *Orçamento do Estado 2024*. <https://oe2024.gov.pt>
- NHS England. (2023). *NHS long term workforce plan*. <https://www.england.nhs.uk>
- Organização para a Cooperação e Desenvolvimento Económico (OECD). (2023). *Health at a glance 2023: OECD indicators*. OECD Publishing. <https://www.oecd.org>
- Ordem dos Médicos. (2023). *Estatísticas 2023*. <https://ordemdosmedicos.pt/comunicacao/estatisticas-nacionais>
- Pestana, J., Frutuoso, J., Costa, E., & Fonseca, F. (2024). Heterogeneity in physicians' job preferences in a dual practice context: Evidence from a discrete choice experiment. *Social Science & Medicine*, 343, 116551. <https://doi.org/10.1016/j.socscimed.2023.116551>
- Portal da Transparência do SNS. (2024). *Utentes inscritos em cuidados de saúde primários*. <https://transparencia.sns.gov.pt>
- Spetz, J., & Quan, A. (2021). *Solving shortages: How technology can help meet California's immediate health workforce needs*. California Health Care Foundation. <https://shre.ink/LaJr>
- Tribunal de Contas. (2020). *COVID-19: Impacto na atividade e no acesso ao SNS (Relatório n.º 5/2020-OAC)*. <https://shre.ink/3Xc8>
- Tribunal de Contas. (2022). *Auditoria ao acesso a cuidados de saúde oncológicos no SNS (2017–2020)*. <https://shre.ink/3Xcb>
- World Health Organization. (2016). *Global strategy on human resources for health: Workforce 2030*. World Health Organization. <https://www.who.int/publications/i/item/9789241511131>
- World Health Organization. (2022). *Health and care workforce in Europe: Time to act*. World Health Organization. <https://www.who.int/europe/publications/i/item/9789289058339>
- World Health Organization. (2023). *Bucharest declaration on the health and care workforce*. World Health Organization. <https://www.who.int/europe/publications/i/item/bucharest-declaration>