

STREAMLING HUMAN RESOURCES MANAGEMENT FOR OPTIMISING HOSPITAL SERVICES

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Abstract

Effective management of health services is crucial for the sustainability of the health system and the provision of high quality health care. It involves strategic planning, rational distribution of resources, implementation of effective policies and procedures, and monitoring of health performance. Human resources, both medical and non-medical, are essential to the functioning of hospitals and influence the quality of services, operational efficiency and patient satisfaction. Medical staff play a vital role in diagnosing, treating and caring for patients, contributing to improving community health and maintaining safety standards, and non-medical staff support the management of hospital resources, ensuring a clean and safe environment for patients and the efficient administration of the facility. The proposed study aims to analyse the management of human resources in hospitals, with objectives such as strengthening the hospital's position, optimising services, adapting to demographic changes and addressing staff shortages.

Keywords: *human resource management; human resources; efficiency; optimisation.*

JEL Classification: M21, M54

I. INTRODUCTION

Effective management of health services is a fundamental element in maintaining the sustainability of a health system and ensuring that people receive the highest possible quality of care. To ensure the sustainability of a health system, it is essential to have in place health service management that works effectively. This type of management involves meticulous strategic planning, rational distribution of resources, implementation of effective policies and procedures, and constant monitoring and evaluation of health service performance. Efficient allocation of human resources is essential to maximise the impact of health services.

The human resources are an essential component in the operation of any hospital and have a significant impact on the quality of care provided (Kruk et al., 2010), operational efficiency and patient satisfaction. The hospital is not just a complex of buildings and medical equipment, but rather a community of medical professionals and ancillary staff working in a coordinated way to provide patient care.

The human resource in a hospital is the specialised medical or non-medical staff who make individual or collective action in health accessible. Given the specificity of the hospital, particular attention is needed in order to hire staff, their skills, and their attitude and behaviour towards hospital patients. Medical staff, which includes doctors, nurses, technicians and therapists, play a crucial role in diagnosing, treating and caring for patients. Their qualifications, experience and skills contribute to saving lives, recovering patients and improving the health of the community. Medical staff are also responsible for maintaining safety and quality standards within the medical facility. In addition to medical staff, non-medical staff also play an essential role in the smooth running of a hospital. This includes administrative staff, IT, human resources, cleaning and maintenance services, as well as staff in the finance and accounting departments. These employees contribute to the efficient management of the hospital's financial and material resources, the provision of a clean and safe environment for patients and the proper administration of staff.

This study aims to conduct a dynamic analysis of human resource management in a hospital setting. In order to achieve this goal, the objectives set are: strengthening the position of the hospital in the region served, optimizing the medical services for the population, demographic changes and remedying the shortage of staff in the hospital under analysis.

II. LITERATURE REVIEW

The World Health Organization provides a comprehensive definition of the health system, identifying it as a complex whole that includes organisations, individuals and initiatives focused on maintaining, restoring and improving health (OMSF, 2003). This system is not limited to public health institutions, but extends to a variety

of factors and activities, care provided by parents to sick children at home, private health care providers, behaviour change programmes, vector-borne disease prevention campaigns, health insurance organisations, and sector-specific health and occupational safety legislation (WHO, 2007). Human resources are a vital element in the operation of a hospital and have a significant impact on the quality of medical care, patient safety, operational efficiency and patient satisfaction. Investing in the proper development and management of these resources is essential to ensure that hospitals (Kabene et al., 2006) remain able to fulfill their fundamental mission of providing quality health care and responding to the needs of the communities they serve. Human resource management in the health sector is characterized by its specificity, given by the presence of a specialized and diverse workforce, comprising distinct professions and often represented by professional associations or trade unions. For staff with specific occupations in the health system, such as doctors and nurses, the main priority is given to the patient and the practice of their profession, and only then to employer-related concerns (Badea et al., 2006).

In the human resources management of the Romanian health system, the primary objectives are to motivate, mobilize and improve the quality of medical and non-medical staff. This process faces many challenges related to medical staff, such as lack of incentives, insufficient training, low productivity levels, inefficient use of resources, and inadequate distribution of the workforce. Human resources contribute significantly to the operational efficiency of the hospital (West et al., 2006). Effective staff management, proper scheduling of tasks and adequate management of material resources can lead to more efficient use of resources and reduced costs (O'Brien-Pallas et al., 2010).

Human resource planning is one of the crucial activities in human resource management (Zurn et al., 2004). Ensuring that there are sufficient and appropriately trained medical and healthcare staff in the right place at the right time is essential to ensure the effective functioning of the hospital. Together with his/her management team, the manager must identify and determine the staffing needs necessary to achieve the proposed objectives. This involves complex interactions between the organisation's strategic decision-making processes and human resource planning processes (Lengnick-Hall et al., 2011). Human resources, especially medical staff, have a significant impact on the quality of patient care. Studies have shown that well-trained and motivated staff, including physicians, nurses, and technicians, are associated with better care, lower rates of medical errors, and better patient outcomes (Aiken et al., 2013). The process of recruiting specialized medical staff, with specific skills obtained through appropriate training, for vacant positions within the hospital involves choosing candidates from the local or regional market or other sources who have the necessary medical qualifications and essential skills to fill available positions within the hospital. Investment in the continued development of medical and non-medical staff is essential to keep pace with advances in healthcare (Zuber et al., 2017) and to maintain a competent and up-to-date workforce. Continuing medical education, training and professional development programs play a key role in this (Newington, et al., 2021).

III. EVOLUTION OF THE POPULATION SERVED BY THE HOSPITAL

The analysis and evaluation of the hospital's activity is carried out according to a uniform methodology approved by order of the Minister of Health (OMSF, 2010). The hospital serves part of the population of a given region or community, providing essential medical services to those people who need medical care, treatment, surgery or other health services. It is a vital institution in ensuring the health and well-being of the people in its catchment area and plays a crucial role in providing access to health care, preventing and treating disease, managing emergencies and improving the quality of life of the community. The percentage structure of the population served by living environment in the hospital's catchment area between 2013 and 2019 is shown in the table 1:

Table1 - Percentage structure of the population served by living environment during the period 2013-2019

2013	2014	2015	2016	2017	2018	2019
% Urban						
36,33	36	38.58	38.99	39.52	39.98	39.25
% Rural						
63,67	64	61.42	61.01	60.48	60.02	60.75

Source: Prepared by the author in Excel using data**

Table 1 shows that the percentage evolution of the population served in urban areas is increasing, while in rural areas it is decreasing. The percentage evolution of the population served according to the environment in which they live and the period analysed is shown in Figure 1:

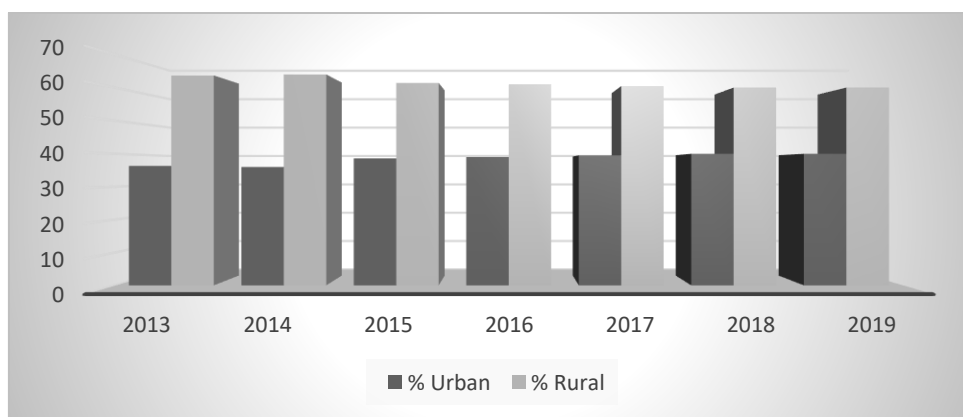


Figure 1- Evolution of the percentage structure of the population served by living environment between 2013 2019

Source: Prepared by the author in Excel using data**

Analysing the previous figure we see that the number of population served in rural areas is higher than the number of population served in urban areas, reinforcing the position of the hospital.

The percentage structure of the population served by gender by the hospital analyzed in the period 2013-2019 is represented in Table 2:

Table 2 - Percentage structure of population served by gender between 2013 and 2019

2013	2014	2015	2016	2017	2018	2019
% Men						
45,21	46	46.06	46.51	47.25	46.82	45.87
% Women						
54,79	54	53.94	53.49	52.75	53.18	54.13

Source: Prepared by the author in Excel using data**

Analysing Table 2 we observe that the number of women admitted to the hospital analysed is higher than the number of men. According to the National Institute of Statistics on 1 January 2017, the resident population of Romania was 19644.4 thousand inhabitants, of which 10 million women (51.1%), a situation confirmed by the number of female patients presented to the hospital. The highest percentage share of female persons served was recorded in 2013 and the lowest in 2017.

The percentage evolution of the population served by sex and period analysed is represented in Figure 2 and it can be seen that the number of female population is predominantly:

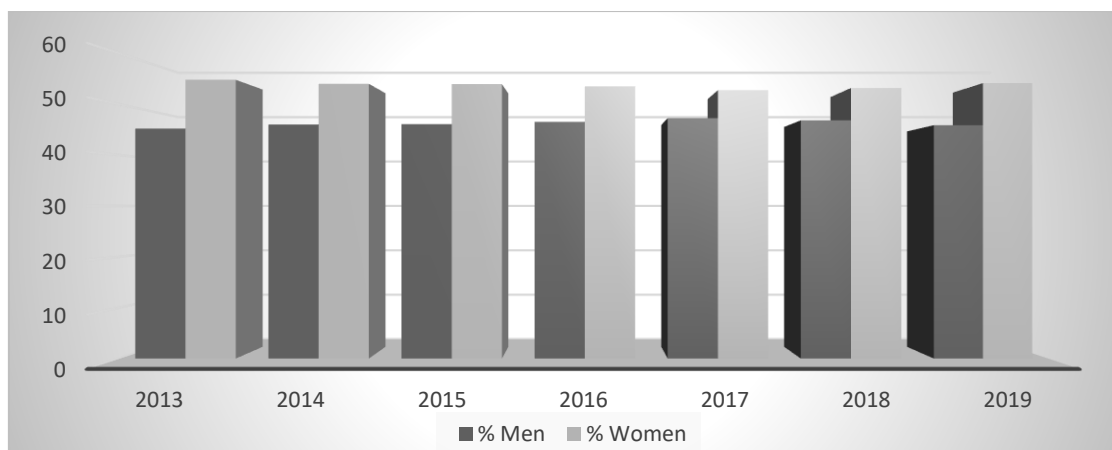


Figure 2 - Evolution of the percentage structure of the population served by gender between 2013 and 2019

Source: Prepared by the author in Excel using data**

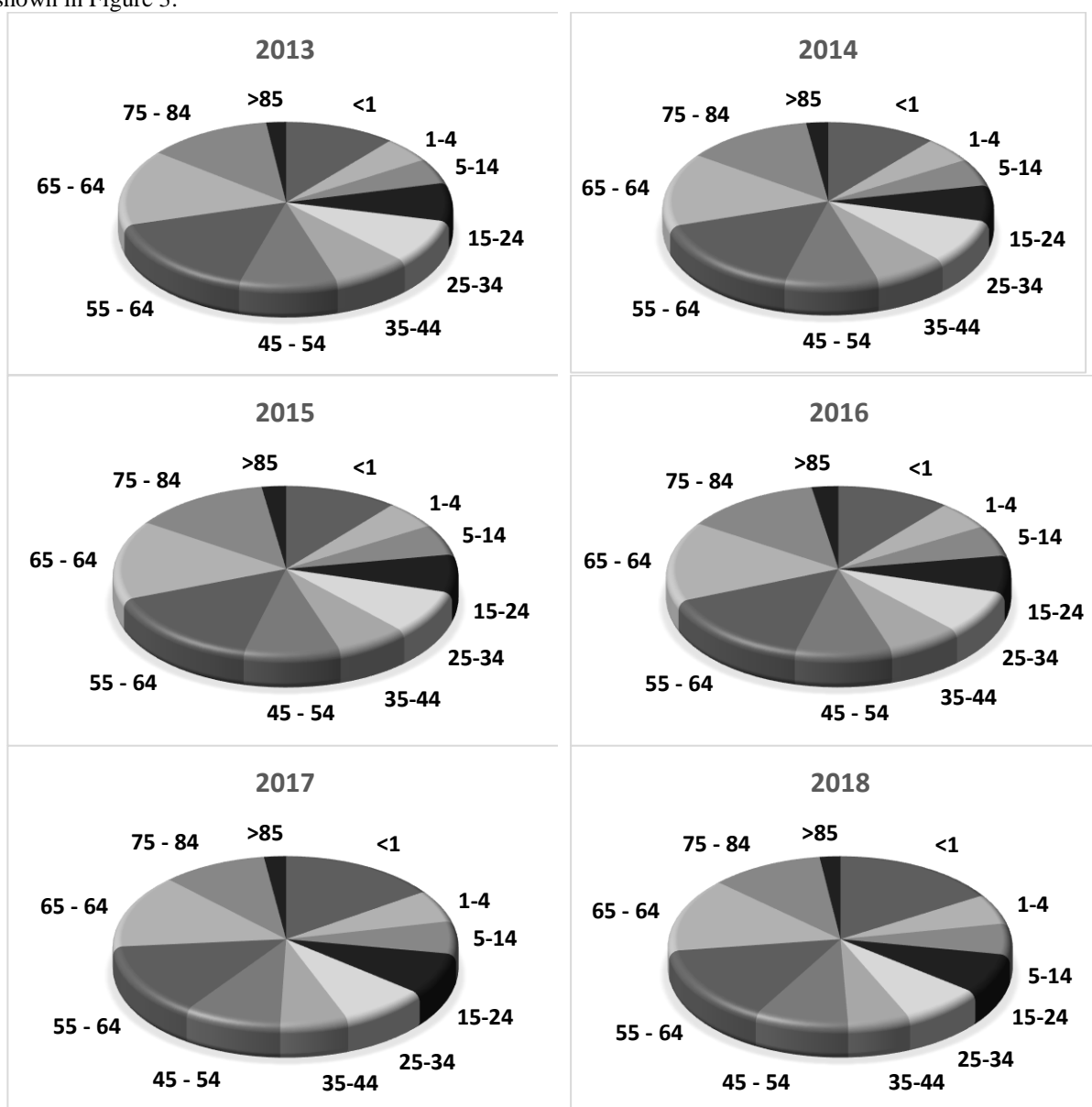
The percentage structure of the population served by age of the hospital analysed in the period 2013-2019 is represented in Table 3:

Table 3 - Percentage structure of the population served by age during the period 2013- 2019

Ani	<1	1-4	5-14	15-24	25-34	35-44	45-54	55 - 64	65 - 64	75 -84	>85
2013	11.16	5.03	4.96	7.54	8.80	7.55	9.47	16.02	15.00	12.48	1.99
2014	11.18	5.17	5.43	7.20	8.94	7.17	9.15	15.82	14.70	12.99	2.25
2015	11.02	5.34	5.87	7.24	8.58	6.87	9.01	15.24	15.16	13.31	2.36
2016	11.10	5.43	5.90	7.07	8.47	7.00	9.10	14.76	15.28	13.28	2.61
2017	15.42	6.14	6.24	8.14	8.24	6.36	9.16	13.89	14.06	10.21	2.14
2018	16.25	5.74	5.96	7.78	7.69	5.87	8.86	14.65	14.11	11.06	2.03
2019	15.85	6.23	6.14	8.06	8.45	5.74	9.17	14.35	13.28	10.78	1.95

Source: Prepared by the author in Excel using data**

The annual percentage change in the age structure of the population served between 2013 and 2019 is shown in Figure 3:



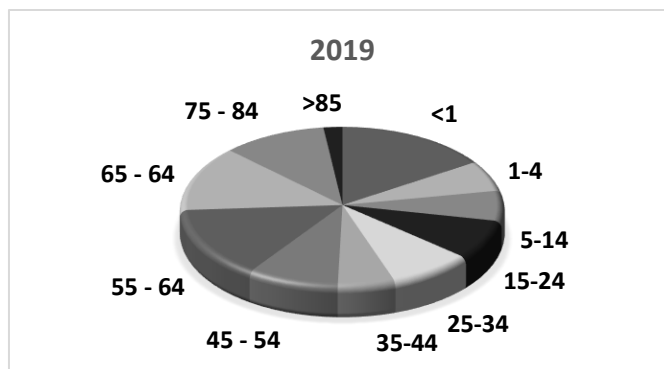


Figure 3 - Annual percentage change in the age structure of the population served between 2013-2019
Source: Prepared by the author in Excel using data**

Demographic factors are observed to be roughly constant. Due to the process of marked demographic ageing in the coming years we observe a share of elderly people treated in hospital compared to the young and middle-aged population. Under these circumstances the hospital under analysis had to adapt to this phenomenon in terms of structural changes and specialist medical care. We also observe a clear proportion of female patients and patients from rural areas. In the period 2013 - 2017, due to the negative values of the natural increase associated with international migration, the resident population of our country decreased by 272.1 thousand people. The age hierarchy of the resident population manifests the specific imprint of the demographic ageing process. This demographic ageing is mainly marked by the fall in the birth rate, i.e. the reduction in the proportion of the young population (0-14 years) and the absolute and relative increase in the elderly population (aged 60 and over).

IV. EVOLUTION OF HUMAN RESOURCES IN THE HOSPITAL

The analysis and evaluation of the hospital's activity is carried out according to a uniform methodology approved by order of the Minister of Health (Law 95/2006). The structure of human resources and their weighting by category in the period 2013-2019 is shown in the table 4:

Table 4 - Structure of human resources by category for the period 2013-2019

Category of personnel	2013		2014		2015		2016	
	No.	%	No.	%	No.	%	No.	%
Doctors	193	16.02	193	16.04	197	16.11	192	14.31
Other senior health personnel	16	1.33	19	1.58	20	1.64	20	1.49
Environmental health staff	567	47.05	571	47.46	596	48.73	653	48.66
Auxiliary health personnel	292	24.23	287	23.86	276	22.57	344	25.63
TESA	55	4.56	55	4.57	57	4.66	58	4.32
Workers	82	6.81	78	6.49	77	6.29	75	5.59
Total	1205	100.00	1203	100.00	1223	100.00	1342	100.00

Category of personnel	2017		2018		2019	
	No.	%	No.	%	No.	%
Doctors	206	14.76	215	14.77	234	15.59
Other senior health personnel	22	1.58	24	1.65	24	1.60
Environmental health staff	674	48.28	695	47.73	697	46.44
Auxiliary health personnel	369	26.43	387	26.58	404	26.92
TESA	61	4.37	64	4.40	66	4.40
Workers	64	4.58	71	4.88	76	5.06
Total	1396	100.00	1456	100.00	1501	100.00

Source: Prepared by the author in Excel using data**

The evolution of the human resources structure by category and period analysed is represented in Figure 4 and it can be seen that the average health staff is predominant in the human resources structure of the hospital.

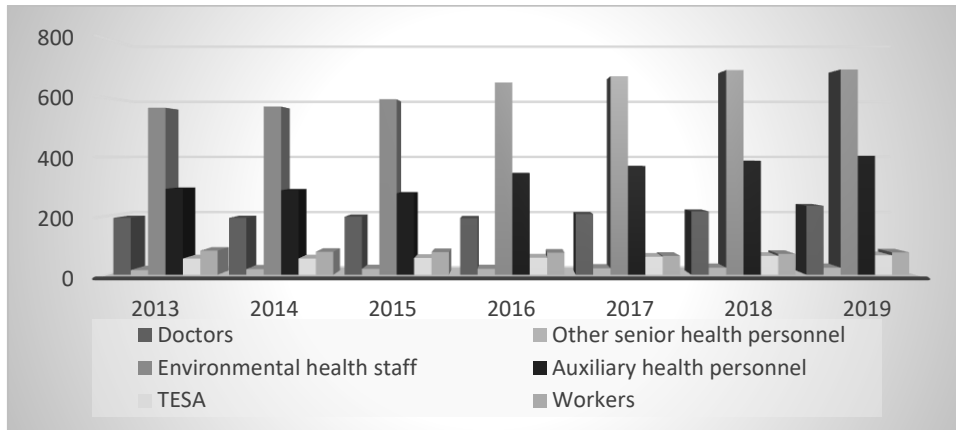


Figure 4 - Evolution of the human resources structure 2013-2019

Source: Prepared by the author in Excel using data**

The percentage evolution of these increases or decreases in the human resources structure by category over the period 2013-2019 is shown in Table 5:

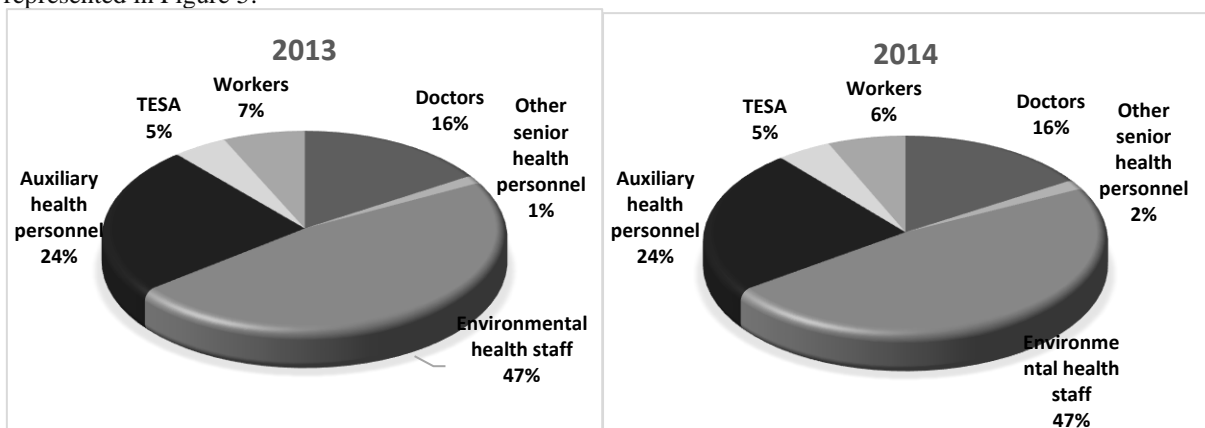
Table 5 - Evolution of annual percentage increases in the human resources structure

Percentage increases	2014	2015	2016	2017	2018	2019
Doctors	0%	2.07%	-2.53%	7.29%	4.37%	8.84%
Other senior health personnel	18.75%	5.26%	0%	10%	9.09%	0%
Environmental health staff	0.71%	4.38%	9.56%	3.22%	3.12%	0.29%
Auxiliary health personnel	-1.71%	-3.83%	24.64%	7.27%	4.88%	4.39%
TESA	0%	3.64%	1.75%	5.17%	4.92%	3.13%
Workers	0%	-4.88%	-1.28%	-14.67%	10.94%	7.04%

Source: Prepared by the author in Excel using data**

Despite increases in staff numbers, the hospital under investigation faces a shortage of staff, including doctors, mid-level health staff, auxiliary health staff, TESA and workers. This has led to an overload of existing medical and non-medical staff, generating disruptions to normal working hours. This situation was created due to budgetary restrictions and difficulties in releasing posts for the recruitment of medical and non-medical staff. There are also cases of migration of professionals abroad, motivated by salary levels. According to the accreditation policies of the Ministry of Health (OMSF, 2010), which follow European requirements, it is imperative to adapt the priorities in the hospital staffing structure to meet the need for quality health services demanded by the population.

The annual percentage evolution of the human resources structure by category and period analysed is represented in Figure 5:



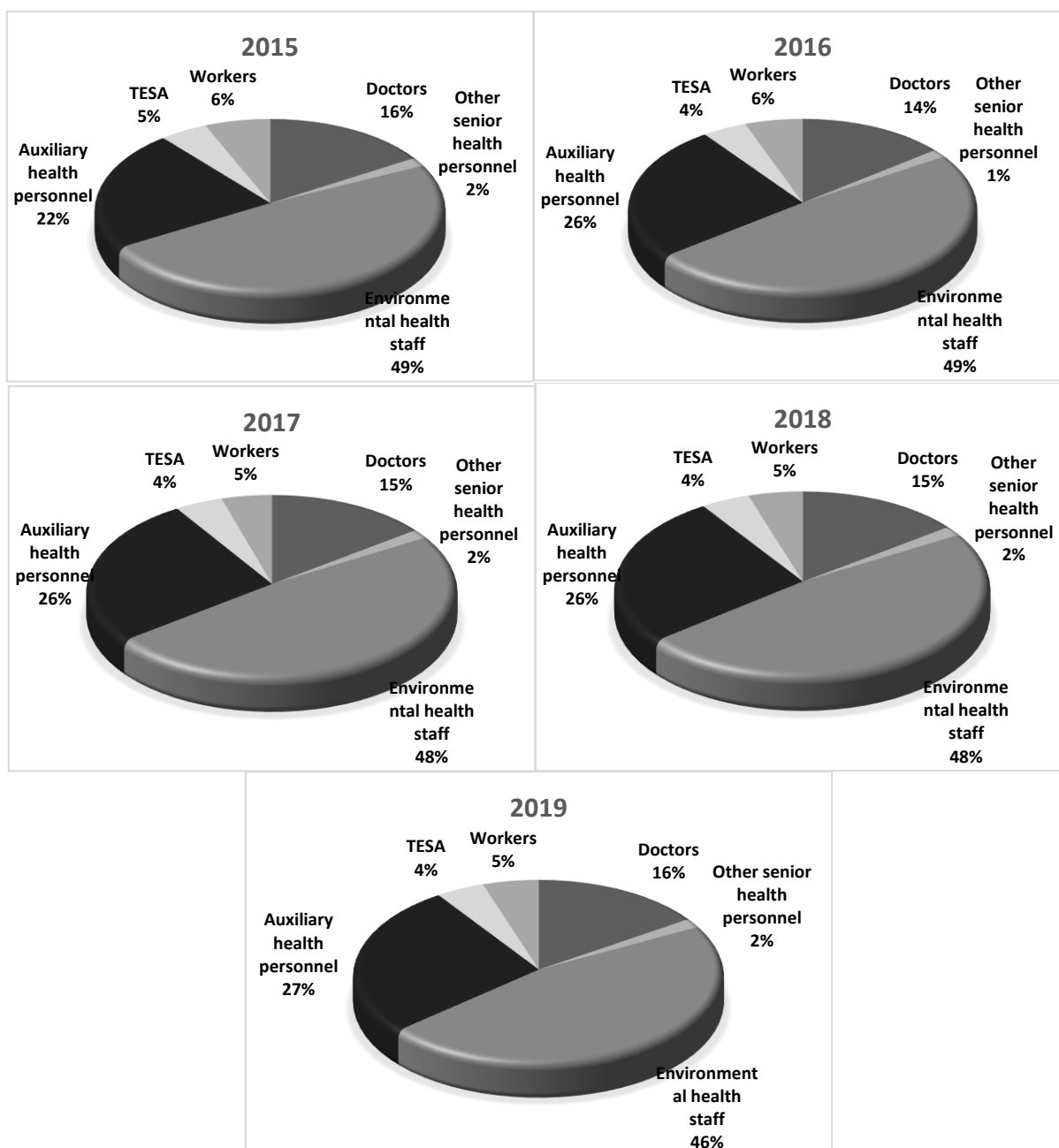


Figure 5 - Annual percentage change in the human resources structure over the period 2013-2019

Source: Prepared by the author in Excel using data**

In order to ensure the provision of quality healthcare in line with European standards, it is essential to implement urgent measures to attract, retain and develop qualified human resources in hospital units, adapting the staffing structure to the current and future needs of the population.

IV. CONCLUSION

Human resource management plays a crucial role in the recruitment, training and development of medical and non-medical staff. They are responsible for ensuring that the hospital has employees with the skills needed to provide high quality care and to respond to patients' needs in a professional and humane manner.

The hospital under review aims to improve the health status of the population served and to achieve a modern and efficient health system, compatible with the health systems of the European Union, permanently at the service of the citizen, with a complex structure of medical and surgical specialties and providing specialist care including for serious cases in the county that cannot be resolved at the level of local hospitals.

Analysing the data from this study we can conclude that the objectives have been achieved. The number of the population served by the hospital analysed is predominantly rural, strengthening the position of the hospital. The presence of private practices and private hospitals in urban areas, combined with the financial strength of the urban population, results in a lower appeal of the urban population to the hospital. The female population is predominant among the beneficiaries of hospital services. This situation is due to the fact that three wards of the hospital are exclusively dedicated to the female population (Obstetrics and Gynaecology, Maternity and Neonatology), wards that are very well equipped both in terms of medical staff and hotel conditions and in terms of the high-performance apparatus and equipment with which the wards have been equipped in recent years. A higher proportion of elderly people than in previous years can be observed, due to the demographic ageing process that has been accentuated in recent years. The hospital has adapted to this phenomenon in terms of medical care and changes in the structure of the medical staff by setting up a Palliative Care Department and increasing the capacity of the Geriatrics Department. Although the hospital under review has seen an increase in staff numbers throughout the period under review, it is still facing a shortage of staff in terms of both doctors, mid-level health staff, auxiliary health and non-health staff, which is causing overload of the hospital's employed staff and thus causing disruption to normal working hours. This situation is due to budgetary restrictions and difficulties in filling posts as they become available.

In conclusion, human resources are the backbone of a hospital and are essential to ensure quality health care, operational efficiency and patient satisfaction. A well-trained, motivated and coordinated workforce is key to the success of any hospital in delivering health care and fulfilling its mission to improve the health of the community it serves.

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