

# Glimpses into Private Dimension of the Health System: Entrepreneurial Solutions and Statistical Insights

Ana-Maria GRIGORE <sup>1</sup>

Elena DRUICĂ <sup>2</sup>

## **Abstract**

*The objective of this paper is to emphasize the link between entrepreneurial spirit and the wellbeing of the healthcare system. Based on a model constructed on empirical observations and built around the concept of entrepreneurial spirit, this paper aims to show that this spirit needs stimulate both the private and the public components of a healthcare system. The paper presents the dynamic of the healthcare market, private practices and private hospitals in Romania, starting from the early '90s and up until the present, showing the problems that have been encountered and a short analysis of some key indicators relevant to entrepreneurial initiatives in the private healthcare system. A special section is dedicated to the comparison between the scale of the activity in private and public Romanian hospitals, as shown by contracts and payments made by the National Health Insurance House. At the same time, the article postulates a potential practical impact that entrepreneurial activities might have on the future development of the public healthcare system.*

**Keywords** entrepreneurship, entrepreneurial environment, public health system, private health system.

**JEL Classification:** L26, I15, L32.

## **Introduction**

According to the European Healthcare Index (EHCI), published at the beginning of 2016, Romanians are among the European citizens who benefit the least from their healthcare system, ranking in at 32 out of 35 countries, only above Albania, Poland and Montenegro. This report only comes to confirm what patients seem to be experiencing, on a daily basis, in hospitals: a lack of adequate communication and information, nosocomial infections, high mortality rates and discouraged doctors. To this, one needs to add the general poverty and corruption present in the healthcare system, which sometimes is justified on the fact that Romania has the smallest healthcare expenses per capita in the entire EU.

---

<sup>1</sup> **Ana-Maria GRIGORE**, Faculty of Business and Administration, University of Bucharest,  
Email: ana.grigore@faa.unibuc.ro

<sup>2</sup> **Elena DRUICĂ**, Faculty of Business and Administration, University of Bucharest,  
Email: elena.druica@faa.unibuc.ro

While other healthcare systems, like the one in the USA, prove that it is not all about money, we can admit that an increase in the amount of financial resources available in this direction can lead to better performances within the Romanian one. However, getting more money seems to be, at least for now, out of control for most of the healthcare-side representatives, a fact that leads to the idea that maybe other resources should be mobilized in order to compensate for what we don't, or can't have yet. And therefore we dare to hypothesis that it may be the right time for a radical new approach to the Romanian healthcare system, one that mimics the trajectory taken by other industries with better results. As Pillary (2014) shows: we desperately need a caliber of individual to effect change within health organizations and within the system as a whole. Instead, we are saddled with administrators and managers, a far cry from what we need to transform the system. (Pillay, 2014)

There are only a few studies that analyze the way in which entrepreneurship can be involved in the public sector. David Osborne and Ted Gaebler (1992), starting from the premise that the "governmental administration needs to be reinvented", studied public management reform and presented a new paradigm for "entrepreneurial governance" where "bureaucracies" can be transformed into "innovative, flexible and responsible organizations". (Androniceanu, 2008)

Based on this study and the experience of more advanced countries, the paper is structured as follows: the next section proposes a model emphasizing the interconnections between entrepreneurial spirit and a well-working healthcare system. The third section of the paper analyses entrepreneurial initiatives in the Romanian private healthcare system. This is followed up in the fourth section with a brief statistical analysis, concerning Romanian hospitals, which focuses on the scale of private enterprise phenomena working in conjunction with the National Health Insurance House. Sections 5 and 6 emphasize the applicability of entrepreneurship in public hospitals and identify several best practices examples in the Romanian healthcare system.

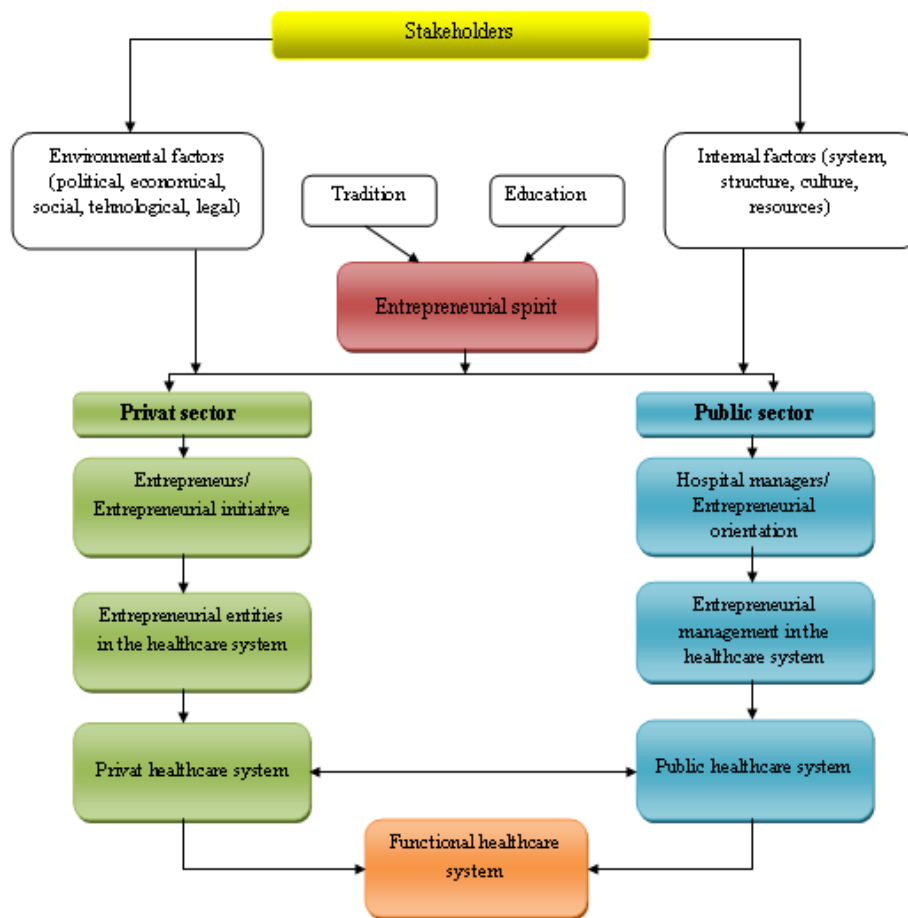
## **2. A model for the interconnections between the entrepreneurial spirit and a working healthcare system**

This model has been the result of a careful and pragmatic observation of the premises for the development of the entrepreneurial phenomena in Romania, and a thoroughly analysis of the medical care system in our country.

In creating this model, we started from the premise that any society needs entrepreneurs, be them classical or managerial, and that they usually show up if the following conditions are met: ideally there needs to be an entrepreneurial tradition and education. This favorable environment creates the appropriate entrepreneurial potential, meaning that a significant percentage of the population takes into consideration the possibility for an entrepreneurial career. But, to accomplish that, favourable environment should occur, especially the market oportunities and a minimum infrastructure. (Grigore & Dragan, 2015; Toma et al., 2014). However, entrepreneurial potential generates more than just entrepreneurs; it also creates an

entrepreneurial spirit in society, one which will influence other aspects of society, in this case the management of public institutions, leading to the formation of entrepreneurial managers and the creation of a new paradigm: entrepreneurial governance.

At the same time, policies and institutions are vital for the conception of appropriate rules, necessary for such a game, and the creation of mechanisms crucial for the inner workings of the market. They need to publish a set of laws which is complete, coherent, stable, simple and clear so as to adequately stimulate initiative and innovation (Toma et al., 2014). This needs to be stated because it has become apparent that the relevant legislation, for the sector we are dealing with, acts more as an encumbrance for the entrepreneurial spirit. The fear of making mistakes or fostering corruption has led to an over legislated environment, riddled with bureaucratic excess, whereas practice has shown that this mentality is a hindrance to initiative, assuming responsibility and, paradoxically, does not eliminate corruption.



**Figure 1. A model for the interconnections between the entrepreneurial spirit and a working healthcare system**

The environment is crucial in the creation and maintenance of the entrepreneurial spirit. In the healthcare industry, the environment is composed of: providers (such as hospitals or doctors), suppliers (pharmaceutical companies, suppliers of medical equipment and so on) competitors, patients and other stakeholders, such as central or local authorities. The healthcare industry, similarly to the automobile, telecommunication and computer industries, has been presented as being very turbulent and highly competitive (Shortell and Kaluzny 2000, see also Guo, 2003), meaning that it is defined by complex changes that happen at a very fast rate. The industry is further complicated by the multitude of direct and indirect interests involved in the supply of medical assistance (internal and external stakeholders). Therefore, in times of trouble, the ability to anticipate changes, to recognize external forces and to satisfy market demands greatly improves the odds of success. (Guo, 2003)

The external environment has a strong influence on the internal environment, which consists of the organization itself, its structure, culture and resources. As the external environment becomes more turbulent, the internal organization needs to account for this and to take measures so as to reduce uncertainty. (Guo, 2003) Under these difficult conditions, entrepreneurial activities, which have been successful in other sectors of the national economy, need to be transplanted to the medical sector so as to promote success. As previously mentioned and from what one can gather from the model, entrepreneurial spirit needs to be found both in the private and the public healthcare systems so that society can hope to reach a critical mass necessary of viable healthcare organizations which can then contribute added value to a functional national system.

In the next section, the paper will analyze the way in which the entrepreneurial spirit can be found in the private healthcare system, as well as in the public one.

### **3. Entrepreneurial initiatives in the Romanian private healthcare system**

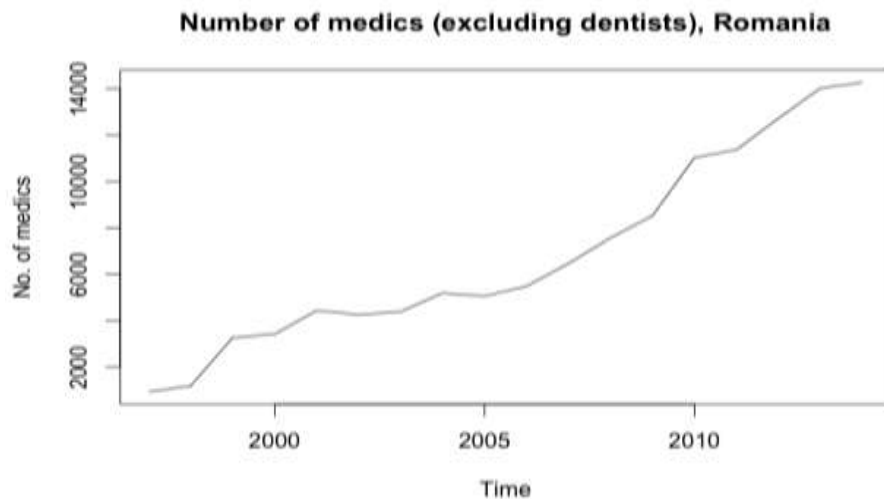
Competition on the private healthcare market in Romania has been on the rise for the past couple of years. Investment funds have targeted this extremely dynamic business sector. In 2014, revenues for private clinics and hospitals were 263.6 million euro, with Medlife at the top of these private networks. The company was created by the pediatrician Mihaela Marcu Cristescu and run by her sons, Mihai Marcu, president, and Nicolae Marcu, CEO. In 2014, total profit for private healthcare providers in Romania was in excess of 10 million euro, Medlife recording revenues of 56.55 million euro (according to the Ministry of Public Finance data), a growth of 9.1% compared to the previous year, and a quadrupling of net profit. (Forbes, 2015)

The private-doctor first appeared in Romania at the beginning of the '90s and was seen with doubt and opposition by potential patients as well as authorities, who were reticent towards any type of private enterprise. Today, more than 25 years later, the private component of the healthcare system is still present and growing in importance.

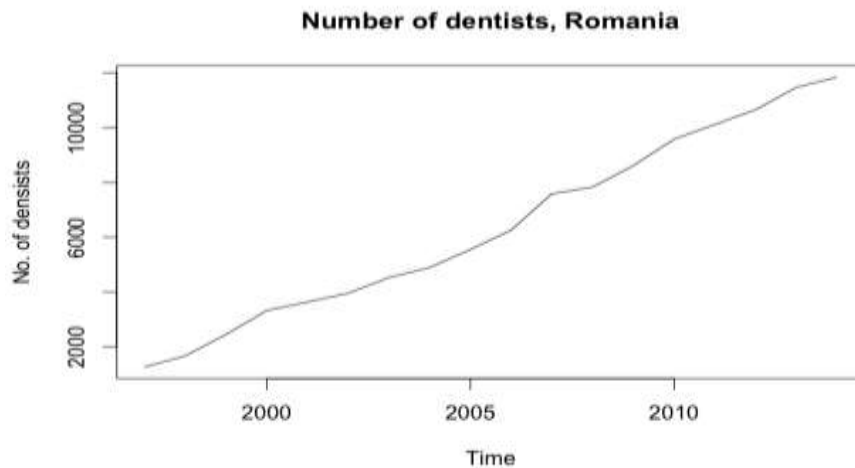
The Romanian medical healthcare system needs a strong private component. “There will undoubtedly come a counter-argument, said professor Paun. The private system is oriented towards profit and not the patient. Nothing more false than that. Profit is linked to the consumer in any domain, including healthcare. Empty hospitals, just like empty stores, cannot bring in profit. In order to fill those hospitals, that is for patients to seek you out; you need to have an excellent price to quality ratio. That is the only way to make a profit. If your medical services are expensive and of low quality you will go bankrupt and be eliminated from the market. Profit orientation only comes to strengthen the argument that private services are better than public services.” (Paun, 2015)

The above-mentioned author claims that an appropriate example is dental care in Romania that, at the moment, is quasi-private. Romania has reached a point where it is an exporter of dental care services, whereas other medical services (such as those relating to oncology or cardiology) are imported by Romanians from other nearby countries (Turkey or Austria). It is enough to see how dental care services present themselves, how the market works in order to extend this model to all other medical services.

To this effect, we will present the evolution of the number of doctors in the private system, without dental care, and compare it with the number of dentists. We can easily notice that the growth rate is similar for both, which shows a stable and consistent level of development in the area of private healthcare. At the same time, we can observe, from the numbers on the vertical axis, that the phenomena is more developed for dentistry, which is in line with the assertion that dental care is quasi-private.

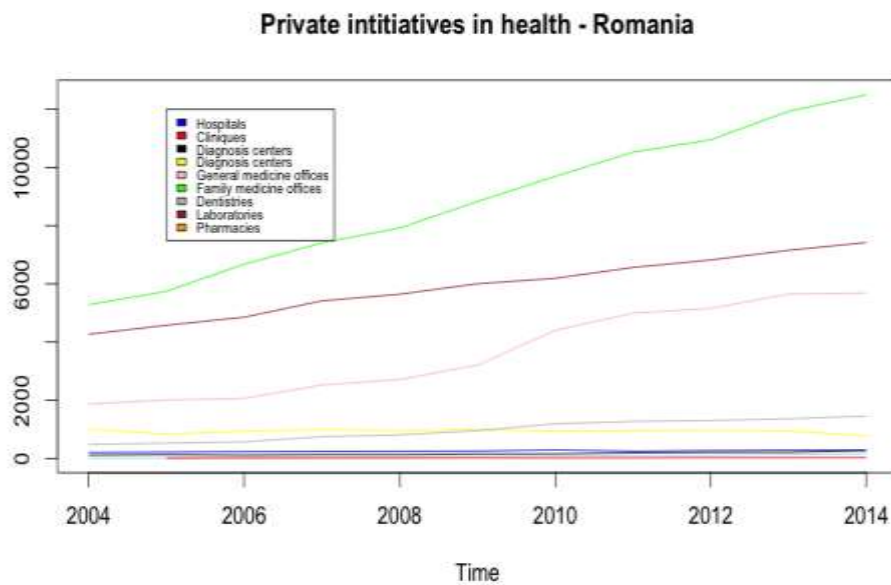


**Figure 2. Number of medics in the private healthcare system in Romania between 1997 and 2014**

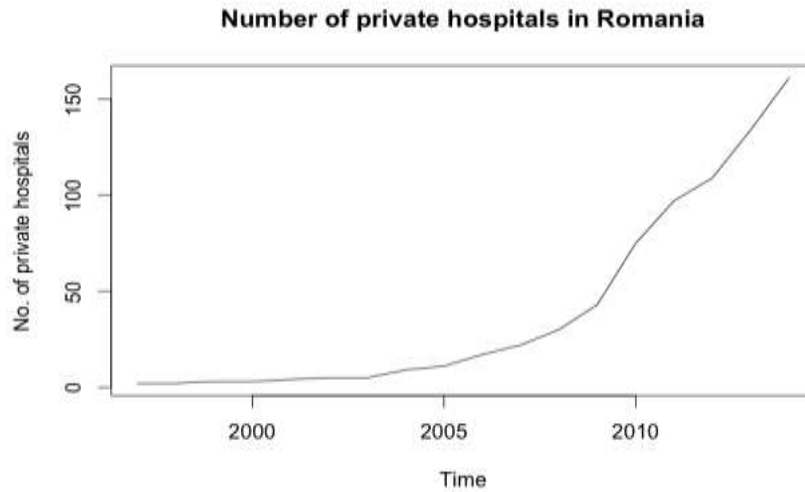


**Figure 3. Number of dentists in the private healthcare system in Romania between 1997 and 2014**

Furthermore, we analyzed the dynamic of entrepreneurial initiative in the private healthcare system in Romania, from the perspective of several relevant indicators (the number of: hospitals, diagnosis center, polyclinics, health centers, private practices, dental offices, laboratories and pharmacies). The data is from the National Institute of Statistics and has been analyzed using R.



**Figure 4. Number of private initiatives in the Romanian healthcare system between 1997 and 2014**



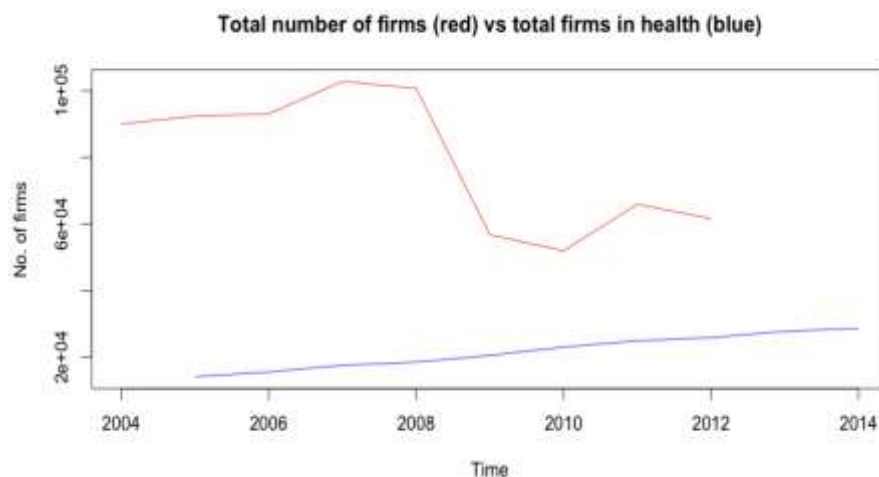
**Figure 5. Number of private hospitals in Romania between 1997 and 2014**

We can notice an upward trend for all the indicators, with a significant year on year growth rate. Hospitals are the only exceptions, and their lower growth rate can be influenced, on the one hand, by the high initial costs for entry on the market and, on the other, by the living standard and income of the population.

We are of the opinion that three factors have had a significant influence on this evolution:

1. The imperfections of the public system necessitated the development of an alternative – the private providers themselves, doctors, have imposed the transference of the medical act to private practices where, in general, they themselves work;
2. The economic growth and accession to the EU have led to a diversification of the technical and financial mechanisms for private care, leading to improved expectations from small and large entrepreneurs;
3. The gap between key indicators for medical care in Romania and the majority of other countries in the EU has brought the significant investment potential to the attention of companies in this area.

Another aspect that we wanted to study is the evolution of the total number of companies and the number of healthcare companies between 2005 and 2014. The results can be found below:



**Figure 6. Total number of companies in Romania (red) and total number of private healthcare companies in Romania (blue) between 2005 and 2014**

The difference between the two, total number of companies and total number of private healthcare companies, can be explained by the fact that the events of the 2008 financial crisis had a different impact on each market:

- The first one was impacted by a drastic fall in demand; a lack of recovery; a lack of faith in the international mechanisms for recovery and a significant fall in financing possibilities;
- The healthcare system continued to grow as a result of: stress caused by the crisis, the ageing of the population; a lack of coherent prevention policies and the availability of financing for this particular sector of the economy (investment funds and pharmaceutical companies).

#### **4. Statistical perspectives over the hospitalization expenditures reimbursed by Romanian Health Insurance Fund: the case of public versus private hospitals**

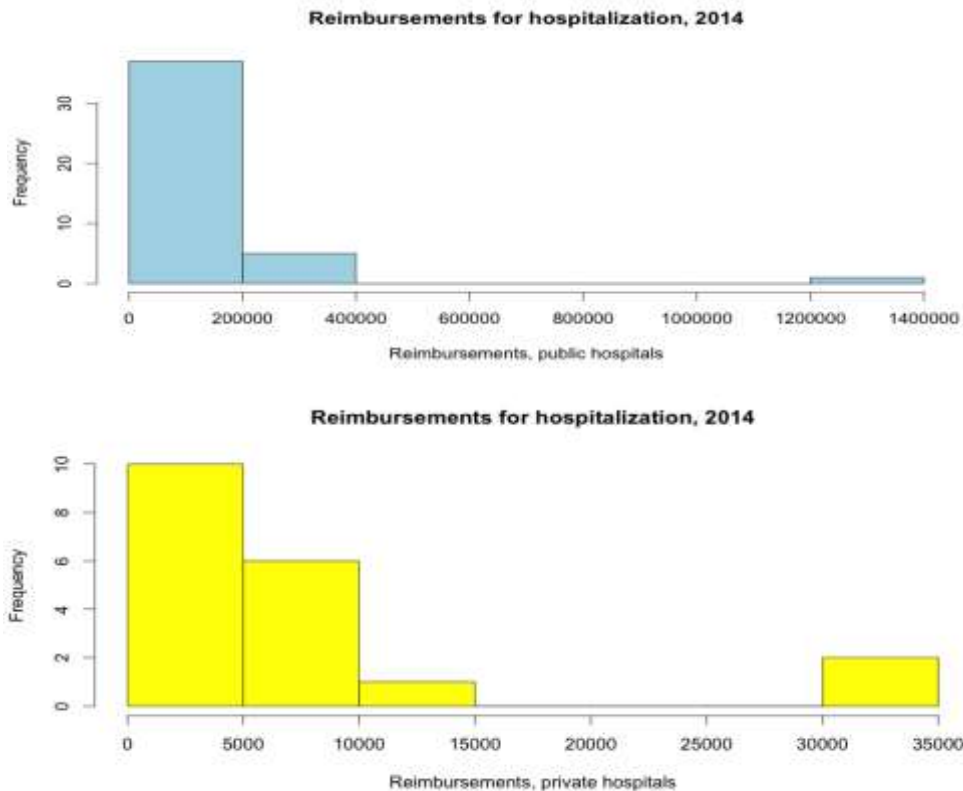
The conceptual model presented in Figure 1 brings into attention the two main components of entrepreneurship, the public and the private, and emphasizes the bidirectional relationship between the public and private sides within a health system. In the previous section, we presented visually the evolution of Romanian private initiatives in the field of healthcare and stressed the idea that the healthcare industry has a number of specific features. One of them is the high degree of regulation that not only bounds the things that can be done outside the public management box, but also induces a certain attitude at the population level whenever a private initiative is to be accepted. On the one side, the population expects private services to be more expensive and consequently the cure to be more effective, but on the other side the idea of an entrepreneurial component in health is often associated with the market, and market profit – oriented strategies, and may entail distrust.



Taking the previous considerations as our departure point, we admitted that the degree to which the private component of the Romanian health system is accepted and integrated into its overall architecture can be described through the ratio between the number of services incurred and reimbursed by the health insurance fund, as well as the ratio of their corresponding expenditures, ratio calculated between public and private providers. Data regarding our variables of interest were available for hospitals and concerned the year 2014.

To achieve the objective, we considered three data sets provided by the Ministry of Health. The data cover 42 Romanian jurisdictions, or districts, and refer to four variables, registered separately for public and private hospitals: number of contracted cases discharged from the hospital, number of reimbursed cases discharged from the hospital, the amount of money contracted (thousand lei), and the amount of money reimbursed (thousand lei).

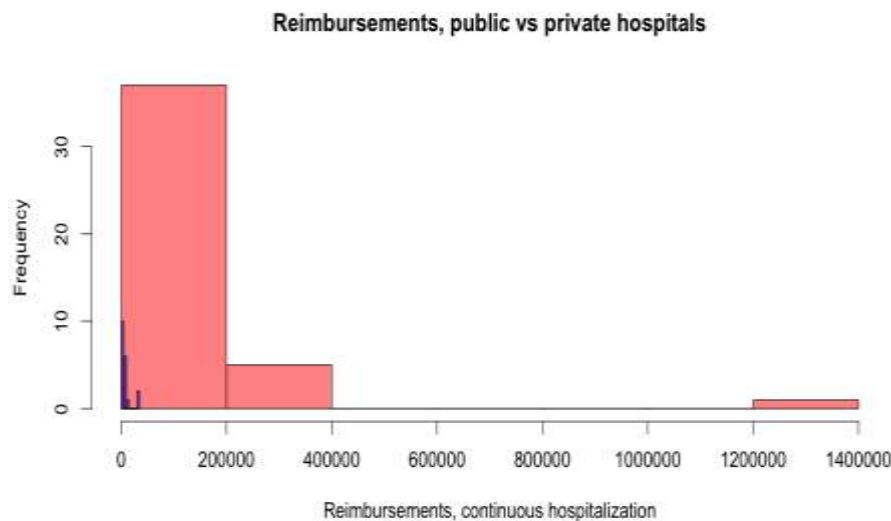
The first step in our analysis is to calculate the correlation between these four variables and we found values close to 100% for public hospitals and slightly smaller values for private hospitals. This result is an indication that we can focus on one variable, the rest of them having a similar behavior. We choose the amount of money reimbursed as this variable that best reflects the expenditures.



**Figure 7. Money reimbursed by health insurance funds in Romania in 2014: public (left) versus private (right) hospitals**

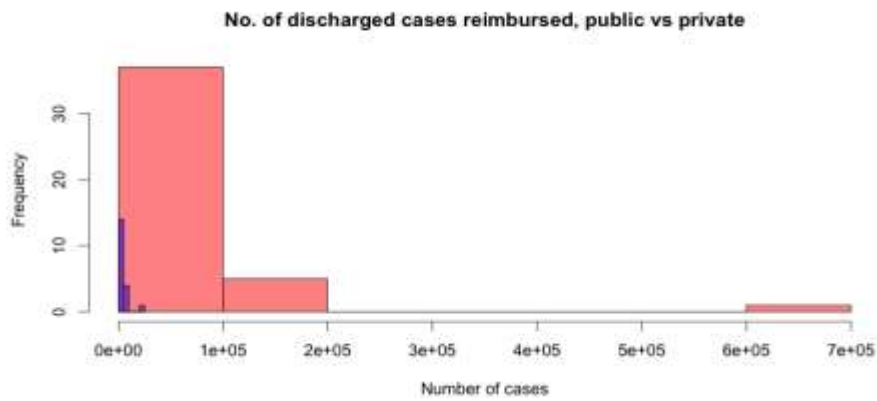
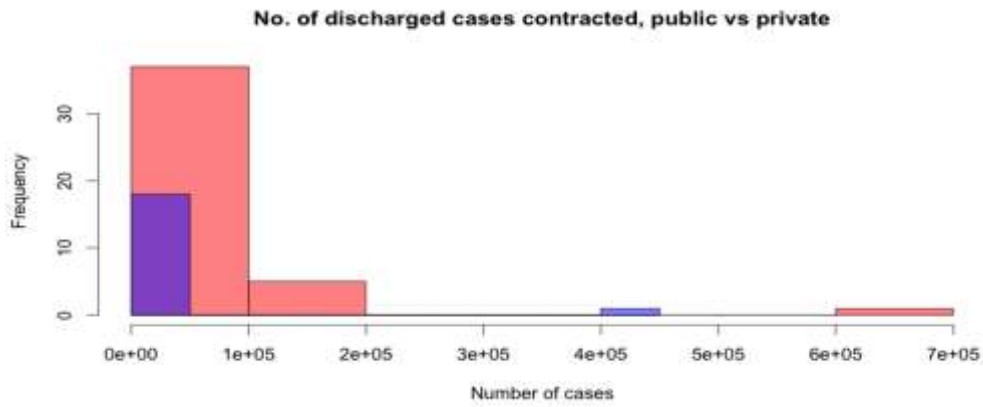
Figure 7 shows the histograms of these amounts of money reimbursed for public (left) versus private (right) hospitals. The distribution in both cases is right skewed, pointing to a higher frequency of the outcomes ranging between rather small amounts, but Figure 8 displays another interesting feature of the data: the amounts reimbursed to private hospitals represent only a small part of the amounts reimbursed to public hospitals.

We definitely expect skewed distributions for these data: the districts recorded with the highest reimbursements for public case are: Bucharest, Cluj, Iași, Mureș, Timiș, all of them university centers with important schools in Medicine as well as with a long tradition in healthcare. Private hospitals with the highest reimbursement are from districts such as Mureș, Brasov and Bucharest, centers where the private initiative is supported by tradition, competencies as well as an advantageous geographic position.

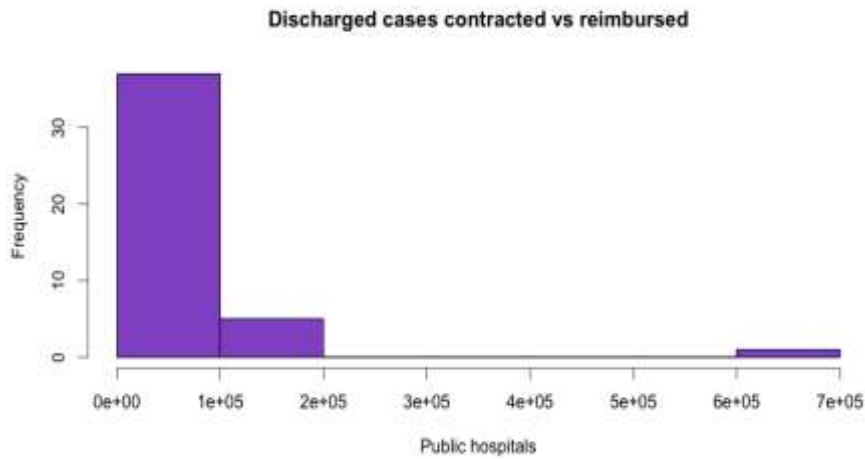


**Figure 8. Money reimbursed by health insurance funds in Romania in 2014: public (red) versus private (blue) hospitals**

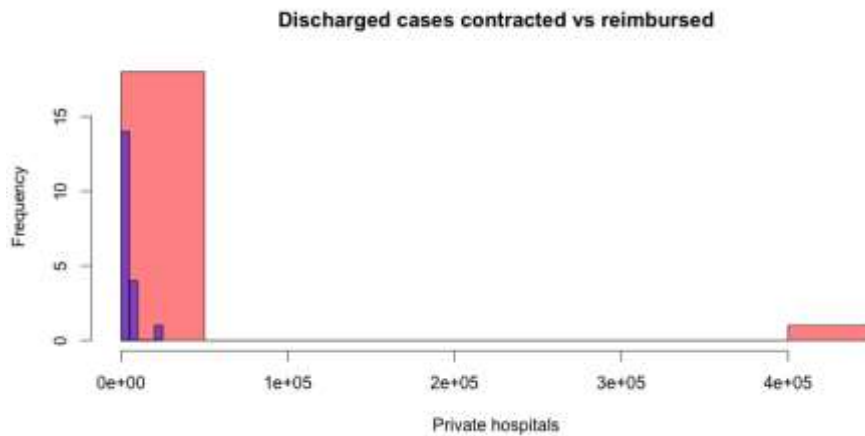
An interesting aspect is emphasized in Figures 9a and 9b. Figure 9a shows the number of discharged contracted cases, for both public (red) and private (indigo) hospitals, and we can acknowledge that the private hospitals have fewer cases, as we may have expected. Figure 9b however, shows that, while in the case of public hospitals the distribution of the data for contracted cases and reimbursed cases are identical, in the case of private hospitals there are significant differences: the number of reimbursed cases is far lower than the number of contracted cases. This becomes evident on the histograms presented in Figures 10 a, and b.



**Figure 9a and b: Number of contracted (left) and reimbursed (right) cases in 2014: public hospitals (pink) and private hospitals (indigo)**



**Figure 10a: The distributions of number of contracted versus reimbursed cases discharged from the hospital for public hospitals match perfectly**



**Figure 10b: The distributions of number of contracted versus reimbursed cases discharged from the hospital for private hospitals hardly match**

This brief and simple analysis helps us understand that, at this stage, the main proportion of expenditures in hospital healthcare is allocated to public hospitals. There are two ways to explain this fact: we can either stress the idea that, despite the development of a private dimension in the Romanian health care, the vast majority of funding is allocated to the public side. But we can also consider the idea that after many years, starting before 1990, of direct control and planning, years that created certain representations and beliefs regarding how healthcare should be provided throughout, private initiative is beginning to emerge and has gained recognition among officials.

### **5. Entrepreneurship: applications for the public healthcare system**

The ability to reduce costs in order that larger categories will benefit of the existing medical products (services and processes) - that means innovation. That is important especially in developing country situation as a sound alternative in improving access to the system for practically the most of potential clients no matter the status level. (such as cell phone technology). (Pillary, 2014).

Another application for entrepreneurship in the industry of medical care is described by Chicken (2000). He proposes a number of entrepreneurial activities for a range of industries. He finds these activities to be present in: financial services (banking and insurance), goods manufacturing, agriculture, transport, mining, fishing, tourism, media, social services and government services. Furthermore, he proposes the idea that entrepreneurial activities manifest in the following situations: first, activities need to be conducted on the free market; second, some activities may be financed or subsidized by the government. Based on this notion, it is clear that entrepreneurial activities may be present in the medical industry.

More so, the external environment of the medical industry demands even more innovative solutions. In other words, as Guo (2003) has shown, flexible decision-making processes, open communication channels and simplified working processes through organizational innovations are much easier to use and more important for healthcare organizations. These processes are, in fact, entrepreneurial processes because managers take on an entrepreneurial role in an effort to get involved, they take on more risk and become agents of change. Guo (2003) said that, in the same manner in which entrepreneurship has been successful in other industries, it can be in healthcare as well; Pillary (2014) has also stated that incremental process innovations based on those of industry leaders in other sectors (e.g., on Toyota's production systems or Wal-Mart's supply chain management) are also extremely important to achieve efficiencies.

Hospital cultures are complex systems, depending strongly on the traditions of the particular site and on the various and often antagonist personalities of the specialists belonging. Sometimes, maybe to often to function properly, politically imposed or determined by some punctual crises organisational revolutions in the hierarchy may threaten cultures significantly. An entrepreneurial approach in management has better chances to anticipate and limit such damaging effects (Grazier, 2015). Besides, ever since 1973, Henry Mintberg has shown that one of the important roles of a manager (including one from the medical field) is that of an entrepreneur, responsible for initiating and guiding change in an organization.

Therefore, an entrepreneurial orientation should be used by organizations in the healthcare sector in order to improve organizational performance and ought to be promoted as a means to achieving a more efficient, flexible and adaptable approach to management, which is necessary given a competitive and turbulent external environment.

## **6. Examples of best practices in the Romanian public healthcare system**

- Moinești Hospital – Dr. Adrian Cotîrlet – a complex and wholesome personality, a visionary in hospital care in Bacău. With consistent work, over the course of 15 years, he has brought the hospital up to European standards and has done this not just for his or his colleagues' satisfaction, but, most importantly, for the good of the patient. His unit has had an unusual evolution in the Romanian hospital system. In 2001 it had 260 beds and 31 doctors and, at the moment, it has over 400 beds and 100 doctors.

- SMURD – born out of the stubbornness of a Palestinian doctor, Raed Arafat, who studied and afterwards chose to remain in Romania. SMURD has become the hallmark of the Romanian healthcare system. One of the most successful healthcare projects, it was born in September 1990, less than a year after the Revolution, when, under the banner of the Anesthesiology and Intensive Care Clinic from Târgu Mureș, they were experimenting with an emergency system successfully operating in other European countries. The service was exclusively volunteer based: students from the Faculty of Medicine and medics or volunteers from the Red Cross in Târgu Mureș.

- CFR Simeria Hospital – Liliana Stolnicu, manager of the CFR Simeria Hospital, her work has been described by her colleagues thus: you can write a management manual based solely on her managerial abilities.

### Conclusions

The medical system seems to have reached a critical stage. New players, especially leaders, are may be required in order to support creativity, innovation, entrepreneurial thought and behavior to work as catalysts for positive changes in our healthcare system.

How can we improve performance in healthcare? One way would be to use the same value adding processes and activities adopted by Henry Ford, Steve Jobs and a multitude of other people in order to ensure that their organizations lived up to their full potential. They were creative, innovative, had entrepreneurial spirit and they encouraged and helped their teams and organizations to do the same. These are not the particular gifts of some fortunate people or companies; they are result of certain abilities that anyone can learn. These skills are necessary in the healthcare industry if we hope to ever get near the full potential of the system as a whole. (Pillay, 2014)

### References

1. Androniceanu, A., 2008, *Noutati in managementul public*, Bucuresti: Editura Universitară
2. Chicken, J. C., 2000, *Management and entrepreneurship*. London: Thomson Learning.
3. Grigore, A. M. and Drăgan, I. M., 2014. “Entrepreneurship and its economical value in a very dynamic business environment”. *Amfiteatru Economic*, 17(38), pp. 124-135
4. Grazier Kyle L, 2015, “The emergence of the entrepreneurial hospital”, *Innovation and Entrepreneurship in Health, Dove Press Journal*, 23 April, pp. 19-24
5. Guo, Kristina L., 2003, “Applying Entrepreneurship to Health Care Organizations”, *New England Journal of Entrepreneurship*, Vol. 6, Nr 1, pp. 45-53
6. Mintzberg, H. 1973. *The nature of managerial work*. New York: Harper-Row.
7. Pillay, R., 2014, “Creativity, innovation and entrepreneurship: a new prescription for health care”, *Innovation and Entrepreneurship in Health, Dove Press Journal*, 15 April, pp. 1-3
8. Paun, C., 2015, *Romania intre marirea salariilor medicilor si privatizarea sistemului de sanatate*, Available at: <http://cristianpaun.finantare.ro/2015/08/21/romania-intre-marirea-salariilor-medicilor-si-privatizarea-sistemului-de-sanatate/>, Accessed 25 January 2016

9. Shortell, S. M., A. D. Kaluzny. 2000. “*Organization theory and health services management,*” in S. M. Shortell and A. D. Kaluzny, eds., *Health care management: Organization design and behavior*, 4th ed. Albany: Delmar Publishers, pp. 4–3.
10. Toma, S-G, Grigore, A-M, Marinescu, P., 2014, *Economic development and entrepreneurship*, *Procedia Economics and Finance* 8, pp. 436-443

On-line resources:

11. The National Institute of Statistics, Available at <http://www.insse.ro/cms/>, Accessed 29 January 2016
12. “Forbes” Review 2015-2-10, Available at: Un antreprenor pur-sânge <http://www.forbes.ro/articles/un-antreprenor-pur-sange-47410>, Accessed 17 February 2016