2 ROMANIAN NATIONAL HOSPITAL MASTER PLAN A NEW STRATEGY FOR HOSPITAL INFRASTRUCTURE DEVELOPMENT

2.1 The National Strategy regarding the Health Services

In April 2004, the Romanian government adopted the 'National Strategy regarding the Health Services' (Government Decision No. 1088/2004).

This strategy was based on:

- the strategy development work of 1998 (basis for the World Bank loan).
- the Government of Romania Health Reform Agenda (2002)
- the National Hospital Rationalisation Strategy (World Bank, 2003)
- the Planning and Regulatory Framework project (GVG)

The strategy was developed as a 10 years strategic plan from 2004 till 2014 and served as a basis for the Health Reform Law from 2006.

2.1.1 The strategic objectives

The main global objectives of the strategy are improvement of the access and the equity of the population to the health services, enhancement of the quality of the health services and increase in the efficacy and efficiency of the health services.

In line with this general framework, 9 specific objectives were elaborated, each with their specific expected outcome. The emphasis put on the hospital sector is illustrated by the fact that 4 out of these 9 specific objectives relate directly and exclusively to the hospital sector. Another 4 have a substantial impact on the functioning of the hospitals and only 1 (objective no 2 referring to primary care[1]) relates to a different sector of the health system.

[1] Objective 2: Expand the primary care services (especially home care, ambulatory care, care in multi purpose health centres) in both urban and rural areas and integrate primary care with ambulatory and hospital care, consistent with the National Health Programmes.

The objectives that refer explicitly and exclusively to the hospital sector are:

- Objective 1: Establish a better performing hospital sector, delivering more efficient and more effective care (such as integrated hospital and ambulatory care, one day hospitalisation) and better diagnostic and therapeutic services
- Objective 3: Ensure adequate and sustainable financing in order to stimulate hospital performance, according to national health policies and the national bed supply plan, and to provide incentives for efficient health care delivery.
- Objective 4: Close, convert or restructure unnecessary or underutilised hospital units to reduce financial losses and to recuperate these resources for developing new priorities in the health system, based on decreasing hospital inpatient admissions and average length of stay while increasing bed occupancy rates and hospital outputs.
- Objective 9: Transfer of care for social cases and elderly from the hospital system to the Ministry of Social Solidarity, Labour and Family and/or Local Authorities, so that the hospitals can focus on providing care for acute cases.
- Four specific objectives aim more at the complete health system. Taking into account the prominent role that the hospital sector holds in the Romanian health system, it is only logical that the implications will be more radical for the functioning of the hospitals.
- Objective 5: Improve leadership and operational management of all health care services, in order to reduce corruption and to improve the capacity of managing and monitoring the strategic health reforms.
- Objective 6: Revise the regulatory framework at the central level to support rapid implementation of the health system reform and the consequent decentralisation of operational and financial management, in order to identify the most appropriate solutions for local health care needs including services for the disadvantaged and vulnerable population.
- Objective 7: Develop a modern system for health service accreditation and adequate monitoring of quality management.
- Objective 8: Increase participation of the private sector in financing health care services which will allow for competition between health care providers for additional funds, distinct from the compulsory health insurance.

2.1.2 The various action plans

Action plans are proposed to reach these objectives. They are divided in an action plan at short term (target 2004), medium term (target 2008) and long term (target 2014); thus completing the full 10 year planning cycle.

The short term plan with 2004 as target (or immediately as the strategy was accepted in 2004) is mainly a preparatory phase with activities to facilitate the actions to take in the following years. Activities to be carried out contain: finalisation of legislative framework for priority directions in the health system, drawing up of health plans at national, regional and county level, measures to improve monitoring and transparency, organising central auctions for drugs, etc.

In the medium term strategic plan (target 2008) 20 different activities are proposed, all in line with the specific objectives.

All these actions are striving towards achievement of the proposed vision of the health services in Romania. This health system will be a harmonious, coherent and integrated system with a stronger primary care sector and a performing and efficient hospital sector.

To achieve this goal, hospitals will have to downsize and reduce their number of beds by:

- fortifying the primary care sector to reduce the hospitalisation rate by reducing the number of non-justified admissions
- introducing new types of services: day hospitalisation and one-day surgery, ambulatory care, home care
- reducing the average length of stay by streamlining diagnostic and therapeutic pathways

In addition attention is paid to:

- financing of the hospitals on the basis of resolved cases (DRG)
- improving the quality and safety in hospitals by implementing the 'Evidence Based Medicine' approach
- establishing health policies regarding new medical technology and medical equipment
- management of the health services based on performance parameters
- decentralising financial responsibility and regional allotment of the resources
- promotion of public-private partnerships
- advocate a rise in financial resources allocated to the health system
- elaboration of a 'Public Health Code'

The long term plan (2014) mentions 2 activities:

1. To achieve the final objectives of the strategy regarding the health services at national level to a national average of approximately 4.3 beds per 1,000 inhabitants, by implementing the actions for reducing the number of beds established by the National Strategy of Hospitalisation Services Rationalisation:
    a. to reduce the average length of stay by treating at least 25% of acute patients in day hospitalisation and by reducing with 10% the average length of stay for in-patient hospitalisations;
    b. to reduce with 10% the hospitalisation rate for acute and chronic patients (except for psychiatric and infectious diseases);
    c. to transfer a determined number of hospitalisation days in hospitals to specialised units for social care and elderly care;
2. To finalise the restructuring and the reorganisation of all the health units and to implement services that are adequate and based on the health needs of the population

2.1.3 The impact of the National Strategy for Health Services on the Hospital Infrastructure Development Strategy

The Strategy for Hospital Infrastructure Development will be completely in line with the principles of the National Strategy for Health Services.

The 3 main global objectives of the National Strategy for Health Services will be pursued and as such the Strategy for Hospital Infrastructure Development will be complementary to the already existing strategy, fortifying the achievement of the global objectives.

To attain the first objective of improving the access and the equity of the population to the health services, the principles applied relate to:

- Provide the same offer of specialised services in all the county hospitals and regional hospitals to assure equity at county and regional level[2]
- Tend towards an uniform level of inpatient services available in all the counties, contributing to equity as well as access for the population
- Reduce regional disparities in terms of high-tech equipments.

Strategies to increase the efficacy and efficiency of the health services are:

- Avoid the duplication of services, both clinical as support services, between the different hospitals as well as in the same hospital, to increase efficiency
- Development of alternative solutions to inpatient hospitalisation, like day hospitalisation, one day surgery, home care services, diagnostic and treatment services, etc. will increase the efficiency of the health services

Integration of mono-speciality hospitals in the county hospitals will have a positive impact on the quality of health care and also on the efficiency.

[2] Some highly specialised services will be implemented at interregional level serving several regions, but here again an equitable distribution will be provided

2.2. The key major strategic orientations to apply

The Iasi hospital network

Iasi, the previous capital of Moldavia, is a renowned city and the oldest university of the country.

The urban area of Iasi alone contains 12 different hospitals, as follows:

- *Three emergency hospitals, of whom one Paediatrics Emergency Hospital*
- *Nine specialised hospitals:*
  - *Gynaecology-obstetrics (2)*
  - *Infectious diseases*
  - *Neurology and Neurosurgery*
  - *One clinical hospital for Urology/Nephrology*
  - *Pneumophtysiology hospital*
  - *Rehabilitation hospital*
  - *One Centre for Cardiology*
  - *One Institute of Gastro-Enterology and Hepatology*

Furthermore, the County Public Health Directorate told the consultant in February 2007 that a new and Hi-Tech Emergency Regional Hospital was scheduled to be built, in addition to the 12 existing hospitals.

The planning of this new Emergency Regional Hospital was done without any global analysis concerning human and financial resources available, without taking into account the healthcare needs of the population, and the general coordination between the different entities of the hospital network, and its connections with other health structures, upstream (primary healthcare) and downstream (mid-term and long term care).

Because of the high number of hospitals and the lack of an efficient coordination between them, the patient management, especially at the pre-hospital level, is very complicated.

The patient route in Iasi: Clinical cases

First example: a patient with a neurological trauma, arriving at the emergency department of the County Emergency Hospital, should be transferred to the neurological specialised hospital to be treated.

Second example: A trauma patient with a brain injury is oriented directly to the Neurological Hospital. After assessment and stabilisation, he should be transferred to the clinical emergency hospital where the Orthopaedics and Traumatology department is located.

Third example: A chronic patient well known by the clinical services is hospitalised in the Infectious Diseases Hospital but, because of cardiovascular problems, he should be transferred to the county emergency hospital, after some hesitation because the patient could also be transferred to the Centre for Cardiology, an Institute.

This presentation of the Iasi hospital network shows the huge difficulties to organise and coordinate the "patient route" among the labyrinth of the 12 hospitals of the city.

This example shows that this type of organisation and network is very costly, in terms of human resources, financial resources, medical equipment and support services, because of the duplication of numerous equipments, and the redundancies of human resources.

Such a hospital organisation is particularly inefficient in terms of quality and security of care, because of the numerous transfers, errors of orientation and the bad conditions of medical transport.

The specific situation of Iasi shows that it is crucial to propose new strategic orientations concerning hospital infrastructures. Indeed, if we have in some urban areas this kind of huge concentration of hospital facilities, in other regions, for example South-East Oltenia, we are confronted with county hospitals which do not play the real role of a reference hospital.

For these different reasons, the new strategic orientations that we propose should take into account:

- the optimum size of hospitals,
- the number and the types of hospitals,
- the new distribution of clinical services per type of hospital, per county and per region,
- and finally, the major issues of restructuring, including grouping together, merging or closing down, with a special attention to the future of rural, town and municipal hospitals.

2.2.1. Types of hospitals

2.2.1.1 County General Hospital and Regional Emergency Hospital

The County General Hospital and the new, still to be constructed Emergency Regional Hospital make up the backbone of the Romanian hospital sector.

2.2.1.1.1 County Hospital

"County Hospital – the general hospital in the county with a complex structure of medico-surgical specialities, with a unit for emergency admissions, ensuring medico-surgical emergencies and providing specialised medical care, including for the serious cases of the county that can't be solved at local level"
Law No. 95, 2006, Art. 172, 1, b

Each of the 41 counties holds its County Hospital[3]. Their average size is 1073 beds (range from 429 in Giurgiu to 2403 in Targu Mures) and for the moment they serve as first referral level[4] for the population in their area of influence and as a second referral level[5] for selected specialities for the whole county.

With an average size of over 1000 beds, the county hospitals can be labelled as very big hospitals. Although there is much debate about the optimum size of a hospital, most agree that with regards to cost-efficiency hospitals with fewer than 200 and more than 500 beds are scale-inefficient[6].

[3] The organisation of hospitals in Bucharest is, for obvious reasons, different. Bucharest, a municipality, is a region on its own.
[4] First referral level: a synonym is secondary care level
[5] Second referral level: synonym is tertiary care level
[6] Posnett, J., Are bigger hospitals better? In: McKee, M. and Healy, J., Hospitals in a changing Europe. pp. 100-118

2.2.1.1.2 Regional Emergency Hospital

"Regional Hospital – the county clinical hospital having the necessary additional competences and human and material resources, in order to provide complete medical attendance for complex medical cases, especially of patients in a critical condition, for the cases that can't be solved at the local level in municipal and town hospitals at the level of the said county, and for all the cases for the affiliated counties which can't be solved completely at the level of the county hospitals because of lack of material and/or human resources or because of the complexity of the case, according to the protocols in force."

Law No. 95, 2006, Art. 172, 1, a

The Romanian government has decided to construct a Regional Emergency Hospital in the capitals of each of the 8 Euro-regions to expand the scope of medical services of high technology or specialisation. The localisations for these hospitals are: Iasi, Constanta, Ploiesti, Craiova, Timisoara, Cluj, Targu Mures, and Bucharest.

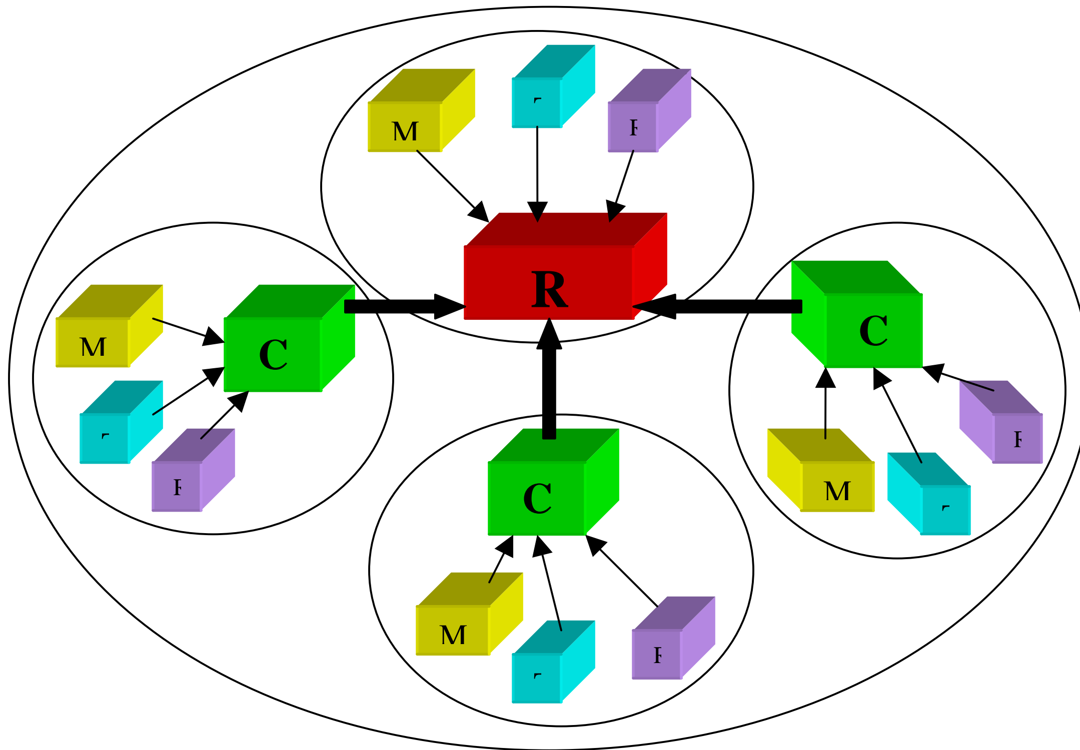
Due to the changing morbidity pattern in Romania and the development of increasing speciality in the medical field, there is indeed a need for high technology services and specialised teams.

It should be clearly stated that according to the Law these regional hospitals will replace the existing county hospital. A coexistence of this regional hospital and the, already quite big, county hospitals would not be sustainable in the current economic context of Romania.

Another consequence is that in the same hospital building, different levels of care have to be identified. The hospital will function as the regional hospital for all the counties in the region (third level of referral), but at the same time also as the county hospital for the county in which it is located (second level of referral) and as the local hospital for the population in its immediate vicinity. A specific attention will thus have to be paid to safeguard the access of the population from the entire region to the highly specialised services and limit direct access, especially for the population in the immediate vicinity of the hospital.

This interrelationship between the different hospitals in a region is schematically illustrated in Figure 8.

Figure 8: Interrelationships between hospitals in a region



R= Regional H, C= County H, M= Municipal H, T= Town Hospital, R= Rural H
Black arrows: referrals

2.2.1.2 The other hospitals

2.2.1.2.1 Local hospitals: Municipal, Town and Rural Hospitals

"Local hospital – the general hospital providing specialised medical assistance on the territory where it operates, respectively municipality, town, commune."
Law No. 95, 2006, Art. 172, 1, c

Municipal, town and rural (or communal) hospitals receive their denomination according to the administrative characteristics of their location: municipality, town or commune.

Municipal hospitals, of which there are 86 in the whole country, are the largest with an average of 375 beds per hospital. The largest with over 1000 beds are found in Bucharest but also in more peripheral places like Roman (807 beds, county Neamt). But the hospital of Codlea with only 75 beds is also a municipal hospital. Their case-mix is on average 0.7003 with a range from 0.4727 (Sacele) to 0.9264 (Timisoara).

There are 95 Town hospitals in Romania and they are a bit smaller with an average of 125 beds per hospital. Many of them have less than 100 beds and at the end of the line we

find the town hospital of Zlatna (45 beds) and Vlahita (35 beds). The biggest is in Pucioasa (346 beds). Their case-mix is on average 0.6001 with a range from 0.4845 (Cernadova) to 0.7699 (Gaesti).

There are 11 rural hospitals with an average of 125 beds per hospital (range from 50 in Gurahont to 146 in Murgeni).

All these hospitals represent the first level of referral but it is a very heterogeneous group: there is a big variety in size and offer of services. The biggest hospitals offer the complete set of basic services and a range of additional specialised departments; the smallest have a very limited offer like only internal medicine and paediatrics (rural hospital in Vlahita). This is a result from the Romanian definition of a hospital as *"a health unit with beds"* and the definition of a general hospital as "*a hospital having two of the basic specialities, respectively internal medicine, paediatrics, obstetrics & gynaecology and general surgery*". This heterogeneity in this group of hospitals raises several concerns.

Firstly there is the issue of the number of beds in a hospital, more specifically the minimum number of beds needed to offer efficient care of high quality.

The literature suggests that the minimum size for a general hospital is 200 beds[7], but this can vary depending on the specific circumstances of a certain country. Several countries have also installed a criterion of minimal size to be regarded as a hospital. One of the reasons to view smaller hospitals critically is their cost-efficiency. Support staff and equipment needs (radiology, laboratory, etc.) are equal for small and bigger general hospitals. Staff requirements are also disproportional high in the smaller hospitals: in some of the smallest hospitals in Romania the budget attributed to staff is up to 90% of the total budget.[8]

Even more important than the number of beds in a hospital is their activity: if the patient load is too low, the medical staff may loose its experience and technical know-how. The principle of minimum level of activities as explained in paragraph 3.2.6.1 is a prerequisite to achieve the desired quality of care.

Specific situations might call for exceptions to these general principles but each case should be examined separately. For example certain mountainous regions in Romania are inaccessible during winter due to snowfall and the norms could be adapted in order to assure permanent hospital care for these populations.

Another consideration to take into account is the scope of the offer of services. A general hospital should be able to provide an answer to all the health problems that a (referred)

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[7] Most of this literature covers the situation in the UK or the USA. Moreover, this figure is derived from a judgment about the minimum staff and equipment needed to provide the necessary complementary services that define a general hospital. (McKee & Healy, Hospitals in a changing Europe)
[8] Personal communication from NHIH

patient presents and thus offer a range of services that covers the 4 basic specialities (internal medicine, general surgery, paediatrics and obstetrics-gynaecology).

Not al the local hospitals present these 4 basic specialities and very often this incomplete offer of services is due to staffing problems resulting from a relative shortage of specialists due to the unattractiveness of these areas. This leads to a situation where the offer of services is not related to the needs of the population but to the availability of specialists.

In the scope of the decentralisation process that the MoH is preparing, a strategy to devolve the responsibility for the local hospitals (municipal, town and rural hospitals) to the local authorities is considered. This implies that it is then at the discretion of these local governments to continue supporting these hospitals or not.

The plans of the MoH for the near future seem to concentrate on the one hand on highly specialised services (construction of Emergency Regional Hospitals and modernisation of county hospitals) and on the other hand on First Line Health Services (Family Doctor Complex). Attention should however also be paid to the level between these sub-systems: the first referral level. Complicated cases are (fortunately) exceptions and a well functioning and easily accessible network of first level referral hospitals is essential to assure a good performance of the health system as a whole.

2.2.1.2.2 Specialised hospitals

Two different situations have to be discerned:

- Specialised hospitals in 1 of the 4 basic specialities: the maternities and children's hospitals
- Specialised hospitals in 1 or more of the other specialities (for example a neurosurgical hospital)

In many of the county capitals maternities and paediatric hospitals are found outside the county general hospital. Because all of these hospitals are functioning autonomously from each other, they all possess their proper technical supporting services (radiology, laboratory, operating rooms, etc.) this leads certainly to a duplication and sub-utilisation of resources. Furthermore an overlap of responsibilities (for example between the neonatology department of a maternity and the paediatric hospital) has to be avoided in a situation of relative limitation in human and material resources, not to mention the tension this can create between the different hospitals[9].

In an ideal situation all the services, especially for the first referral level, should be concentrated in the same building[10], or at least on the same premises. Only then comprehensive care can be offered to the patients by a team that is capable of responding to the complete array of pathology that is presented.

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[9] Several paediatric hospitals also hold departments outside the field of paediatric medicine which makes the situation of overlap even more complicated.

[10] See also the Ministerial Order about the organisation of emergency services where the same problem is discussed.

It is understandable that a process of integrating maternities and paediatric hospitals into the county general hospital will meet considerable resistance because it has been a longstanding situation. An approach in 2 steps might be envisaged where firstly the management of these hospitals will be common. Not only will this lead to more consistency in the management of these public hospitals of the same level, but moreover it will soon become clear to the hospital management team that a merger is the only rational conclusion.

Concerning the other specialised hospitals, the same remarks apply. One could wonder why these hospitals are not integrated in a general hospital (county or regional) because it seems that although a lot of disadvantages can be listed, no justified technical advantage exists.

2.2.1.2.3 Institutes and National Centres

In a meeting of the Council of Ministers on December 18th 2006, the organisation and distribution of the national or regional Institutes for the different specialities have been decided.

Two situations are described:

- A National Institute which coordinates specialised hospitals in the rest of the county
- Regional Institutes: mostly 3 regional institutes[11], one in each of the historic regions of Romania except for cardio-vascular diseases which will have 7 regional institutes.

According to the specialisation, the following decisions have been taken[12]:

1. Oncology

   In the field of oncology there will be 3 regional institutes: the existing institutes in Bucharest (557 beds) and Cluj (456 beds) and a new institute will be set up in Iasi.
2. Cardio-vascular diseases (medical and surgical services)

   There will be 7 regional institutes: Bucharest (338 beds, providing for Bucharest region and the surrounding South Muntenia region), Cluj (185 beds), Timisoara (200 beds), Targu Mures (210 beds), Iasi (130 beds), Craiova (80 beds). A new Institute will be formed in Constanta.
3. Digestive diseases (medical and surgical services)

   For digestive diseases there will be 3 regional institutes: the Institute of Gastro-enterology and Hepatology in Iasi (125 beds) and 2 new Institutes will be set up in Bucharest and Cluj.
4. Renal diseases (medical and surgical services)

   Equally 3 regional institutes will be allotted to renal diseases: Cluj (100 beds) and 2 institutes to be organised in Iasi and Bucharest.

[11] To avoid confusion with the Euro Development Regions, a better name would be 'Interregional Institutes'.

[12] Only those decisions regarding the hospital sector 'strictu sensu' are reproduced here. For the other decisions (sports medicine, transplant agency, psychiatry, public health, etc.) please see the original text.

5. Infectious diseases

The Institute of Infectious Diseases 'Matei Bals' in Bucharest (640 beds) will be the sole national institute in this field.

The reorganisation of the rest of the network is postponed until a later date.

6. Diabetology

The current institute in Bucharest (177 beds) will be transformed to a national institute.

The institute in Buzias (150 beds) will be transferred to the County Hospital from Timisoara.

7. Endocrinology

The current institute 'C.I. Parhon' with 399 beds will be transformed into a national institute.

8. Cerebro-vascular diseases

The current institute from Bucharest (300 beds) shall be transformed into a national institute.

9. Medical recovery

The present institute in Bucharest (225 beds) shall remain a national institute and coordinate the network for medical recovery of 9 peripheral hospitals.

10. Oto-rhino-laryngology

The Institute 'Dorin Hociota' (340 beds) will remain subordinated to the MoH.

11. Haematology

The current national institute shall remain subordinated to MOPH and regional institutes, subordinated to the national institute are to be set up.

For the consultant most of these institutes should be integrated into the new Emergency Regional Hospitals. Otherwise a considerable duplication of services and an unnecessary introduction of an extra referral level (with problems of coordination and complementarity) will exist in the locations of these regional institutes.

2.2.2. Optimum size of hospitals

The question of the size of hospitals is a difficult issue in all the Western countries. If we set apart the university and clinical hospitals, which constitute a specific type of hospital, generally included in the regional hospital, the European hospitals are generally classified in three categories and the consultant considers that it would be in the interest of Romania to apply these three fundamental types:

- Local or community hospitals,
- Secondary care hospitals, called generally District or County hospitals,
- Tertiary care hospitals, referral hospitals.

Local hospitals

Made up of 50 beds or less in Europe-15 countries, this type of local hospital provides basic diagnosis, minor surgery and, first of all, nursing care. In Great Britain, the

existence of this kind of hospital is important when there are problems of accessibility at the superior hospital level[13].

For reasons of quality and security of care, the surgical and obstetrical clinical departments of these small hospitals have been closed down in different European countries in the 90s.

These community hospitals were also confronted with recruitment issues of physicians and nurses, and most of the time, these entities have been reconverted in social or medico-social structures or in nursing homes for elderly.

District or County Hospitals

The average size of a county hospital is between 200 and 500 acute care beds. The basic clinical departments include the three major medical activities: medicine, surgery and gynaeco-obstetrics, and some specialities as paediatrics and ICU.

The clinical support services are made up of imaging, laboratory and emergency departments.

These county hospitals constitute a key component of the hospital network in terms of categories and types of hospitals, because if the county hospitals are not well equipped, well staffed and well managed, the tertiary care hospitals, including clinical and university hospitals, will be forced to assume a part of the role of county hospitals. That means that the tertiary care hospital could therefore be over-occupied by patients who normally are managed in county hospitals.

In England, we consider that a county hospital should address an average population of 400 000 to 500 000 inhabitants.

It is difficult to determine with precision, norms and standards for the number of beds or for the population to be served.

The tertiary care hospitals

Two models are present. The first one considers that the tertiary care hospital should treat only the patients referred or transferred from secondary care hospitals. That means that these referral hospitals are high-tech entities with a very high level of specialisation.

The second model, applied in Europe, considers that it is important for a tertiary hospital to share both tertiary care and secondary care in terms of efficiency, management and quality of care because it is important to avoid the juxtaposition of two big hospitals in the same area, one secondary and one tertiary (lack of coordination).

It is also important to point out that efficiency, productivity and quality imply the organisation of the whole 'chain of care' in a single hospital, from the Emergency

[13] McKee M., Healy J. (2002). Hospitals in a changing Europe. Open University Press.

Department to ICU, from basic internal medicine to the high medical clinical activities, and from minor surgery to high surgical specialisation. This is integrated medical services at the hospital level.

What is the situation in Romania with respect to these three types of hospitals? As mentioned in the Law N°95 of 14 April 2006, the article 171 has adopted the same territorial criterion: regional hospitals, county hospitals and local hospitals (municipal, town or communal). That means that the Romanian hospital network should be planned and organised on the basis of these three types of hospital, by associating to it, in most cases, university hospitals, which will be regional hospitals.

2.2.2.1. The future of public hospitals with more than 1 500 beds

Presently, we have in Romania:

- 19 hospitals with more than 500 beds;
- 16 hospitals with more than 750 beds;
- 18 hospitals with more than 1 000 beds;
- 10 hospitals with more than 1250 beds;
- 1 hospital with more than 1500 beds;
- 1 hospital with more than 2 000 beds;

Regarding the general trends in terms of hospital governance and organisation[14], the main objective is to reduce the size of hospitals and to change the hospital care delivery model by decreasing the number of beds and inpatient activity and increasing day care, ambulatory care and outpatient activities. This orientation is also part of integrated medical services, associating ambulatory care and outpatient care, operated by the hospital, to more traditional activities.

For example, in Montreal (Canada), the new Mac Gill University hospital of 700 beds will replace the four previous hospitals with a total of more than 3 000 beds, within the framework of a global merger.

Of course, in Romania, it is not possible to achieve such an ambitious target in a couple of years. But it is the responsibility of the Government (MoH) to launch a program planning the global reduction of the size of hospitals.

- Within five years, all the hospitals of the country will have a global bed capacity less than 1 000 thousand beds.

- Within ten years, all the hospitals will have a bed capacity less than 750 beds.

[14] Mordelet, P., Gouvernance de l'hôpital et crise des systèmes de santé. Editions ENSP 2006.

2.2.2.2 The optimum size: from 500 to 400 beds

According to McKee and Healy[15], the optimum size of an acute care hospital, functioning as a high-tech modern hospital (out patient, ambulatory care, day surgery), is about 400 beds. With more than 400 beds, it is not possible to get savings due to the economy of scale.

The complexity of an institution with more than 400 beds, generates additional costs, and not savings, because of the complexity of new modern hospitals.

In Romania, it is not possible currently to reduce the size of all the hospitals in the country to 400 beds for two reasons:

- first, the majority of the Romanian hospitals do not respond to the criteria of modern high-tech hospitals;
- secondly, the hospital professionals working customs are such as they are used to work in big hospitals and will refuse to reduce the size from 1000 or 1500 to 400 beds.

On the other hand, it is possible to impose the number of beds of each new hospital to be constructed to 500 beds now, and to 400 beds from 2010.

Recommendation:
Optimum size of hospitals

The optimum size of an acute care hospital, functioning as high-tech modern hospital (in patient, out patient, ambulatory care, day surgery), is about 400 beds.

Norms regarding the size of new hospitals to be constructed should be defined to 500 beds now, and to 400 beds from 2010.

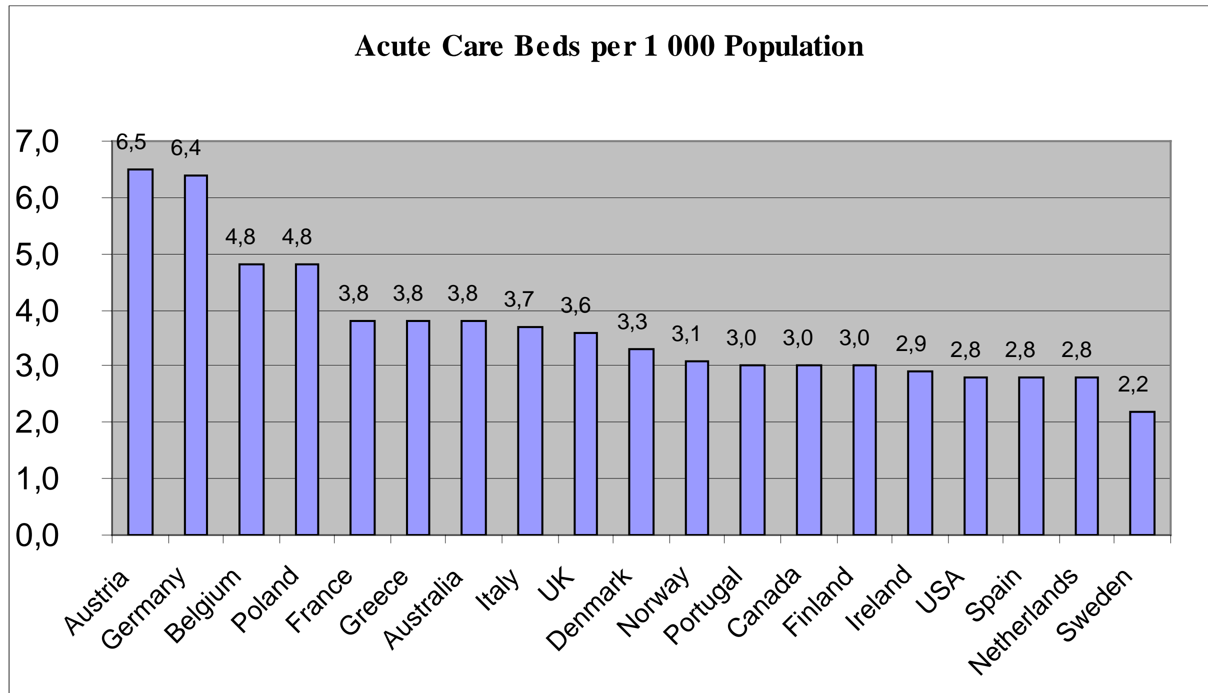
2.2.2.3. The bed, a criteria to be replaced by activity

The country has at present a high number of acute hospital beds. In comparison with the 19 OECD countries, Romania, with an average ratio of 4.66 beds per 1000 population is situated at fourth position, just after Austria, Germany, Belgium and Poland.

[15] McKee, M., Healy, J., (2002) op. cit.

If we consider that the two countries with the highest ratio are atypical[16], that means that Romania belongs to the group of OECD countries with the highest bed capacity ratio.

Graph 25: Bed capacity in OECD countries



Source: OECD – Health Division – October 2006

In contrast, Sweden has launched, fifteen years ago, an ambitious reform, within the framework of a remarkable integrated medical services model, with a huge reduction of its number of beds, thanks to the development of home care, ambulatory care and specific programs to avoid the congestion of acute care beds by elderly and social cases.

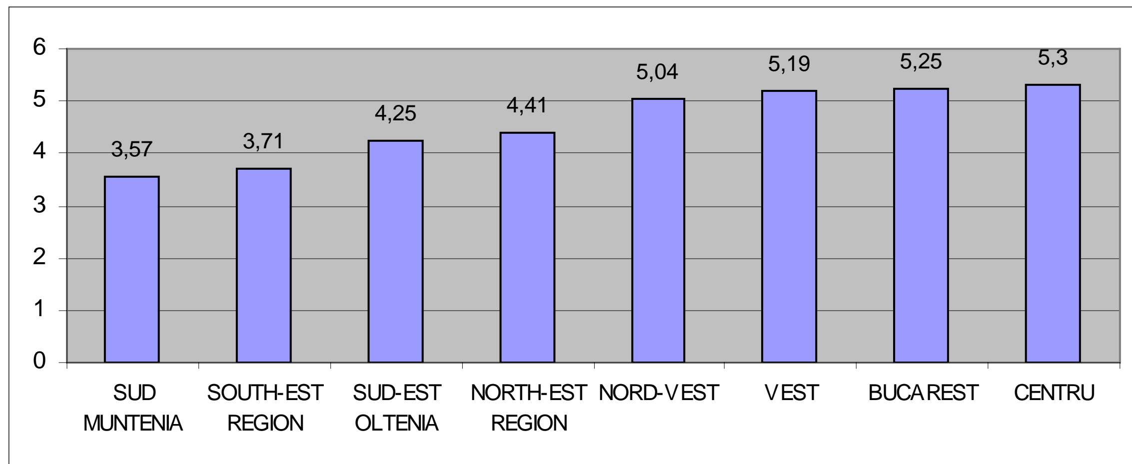
Romania has to be inspired of the Swedish model, concerning home care and the management of social cases, without of course reducing its beds ratio to 2,2.

Reasonably, regarding Graph 26, the target could be around 3.5 beds per 1 000 population within ten years (2017). This objective can not be reached without developing an effective and efficient primary healthcare system with both permanence of care and continuum of care.

[16] In Austria and Germany, until recently, the hospitals were not allowed to treat their patients without hospitalization. This specific legal framework led these two countries to increase their number of beds at an abnormally high level.

Graph 26: Bed capacity per region

ACUTE BEDS PER 1 000 POPULATION[17]



Source: Utilizarea Paturilor in Anul 2005 – Centrul de Calcul Si Statistica Sanitara – MoH - 2006

Concerning the distribution of the number of beds between the different regions of the country, it is important to point out that the two southern regions (South Muntenia and south East Region) already have the ratio to be reached within ten years. On the other hand, it is important to intervene on the four following regions: Nord-Vest, Vest, Bucharest and Centru, in order to reduce the bed capacity of these regions.

If we agree with the recommendations of the GVG report[18] (officially adopted by MoH), concerning the reduction of the number of beds, we would like to insist on an important reform to set up concerning the replacement of the bed criteria by activity. For example, the DRG system shows that in the ten most frequent DRGs, more than half could be treated in ambulatory care. This situation raises the problem of excess supply of beds in some areas, but also underlines the secondary effect of the criterion 'bed' in the functioning of hospitals.

Recommendation:
The bed, a criterion to be replaced by activity

The bed as a criterion should be progressively replaced by the activity of the hospital to reflect better their actual functioning, efficiency and performance.

[17] The acute care beds presented in this figure without psychiatry, TB, balneotherapy and medical rehabilitation, allows an appropriate comparison with other European countries.
[18] GVG, op.cit.

2.2.3. The new distribution of medical specialisation per county, region and at the national level

To organise the distribution of clinical services in the different categories of hospitals, the Ministry of Health has to prepare and to program, a zoning plan or a healthcare map, with a correlation, in a geographical approach, between the healthcare needs of the population and the clinical services to be implemented.

We notice, in the first part of the report (1.3 Geographical and socio-economic disparities), the lack of consideration of the geographical aspects in the distribution of clinical services.

To correct these disparities, the healthcare map, prepared at each regional level and validated at the national level by the MoH, will propose, at the four levels of healthcare organisation (county, regional, inter-regional and national), the different medical specialisations to be implemented.

Basically, at the County Level, we will have all the current clinical activities of medicine, surgery and gynaecology-obstetrics, and the different medical and surgical basic specialities, including Emergency, ICU and Emergency Medical Transportation.

At the Regional Level, the healthcare map will define the high-tech medical and surgical specialities to be implemented in correlation with epidemiological studies presenting the real healthcare needs of the population. For this reason, the healthcare needs could be different from one region to another; that is to say that we can have differences in the number or the size of medical services to be implemented.

At the Inter-Regional Level, the healthcare map will propose the implementation of some high-tech medical specialities as burn patients, cardiac surgery and transplantation.

Indeed, regarding the healthcare needs of the population and both financial and human resources, it is not possible and useful to implement this kind of high-tech specialities in each region.

Finally, at the National Level, the healthcare map will propose some rare high-tech and unique medical specialities, combining high-tech clinical activities and research at a national level.

The originality of the healthcare map, with regard to the existing strategies presented in the GVG project and in the Ordinance concerning the classification criteria of local, county and regional emergency hospitals, is to present the clinical services (number, size and activity), at a geo-demographical level, as a response to the real needs of the population, and not at the hospital level, as a norm to be respected by entity.

Recommendation:
Regional Healthcare Map

The key management tool of the Regional Healthcare Authority is the Regional Healthcare Map, which fulfils the role of a regional strategic plan for healthcare facilities. The different hospital projects, including medical activities development, restructuring, closing down and new hospital constructions, should be in accordance with this Regional Healthcare Map.

Recommendation:
Hospital Network

If the Regional Healthcare Map organises the distribution of medical specialities in the different categories of hospitals (all the current clinical activities at the county level and high-tech medical specialities at the regional level), the MoH should also prepare an Inter-Regional Healthcare Map, in close relationship with the Regions involved, concerning some high-tech medical specialities as burn patients, cardiac surgery and transplantation. The MoH should also prepare a National Healthcare Map proposing some rare high-tech and unique medical specialities combining diagnosis, treatment, education and research at both National and International level.

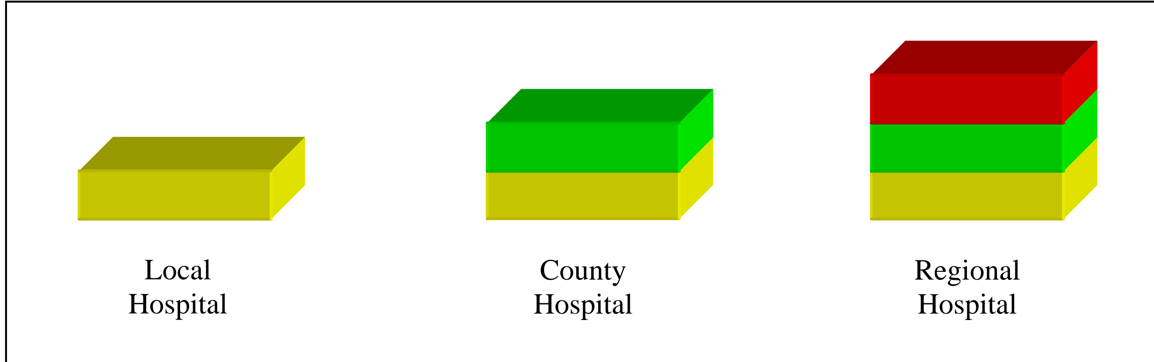
2.2.4. The number of hospitals per county and region

2.2.4.1 The future of hospital network

To achieve an optimal geographic distribution of the hospitals without duplication, it should be kept in mind that the county hospitals serve as the first referral level general hospital for the population in their immediate vicinity as well as the second referral level for the whole of the county. Similarly, the regional hospitals function at the same time as first referral level (for the population in their immediate vicinity), second referral level (for the population of the county in which they are located) and third referral level (for the population of the whole region).

This is represented schematically in Figure 9.

Figure 9: Different functions of county and regional hospital



The activity or services needed in the hospitals are function of the needs and the demand of the population.

The most urgent needs of the population can be derived from the mortality statistics, and especially the avoidable mortality which can be regarded as the unmet needs. But the vast majority of the needs of the population consist of the disorders for which a medical intervention managed to save the life of the patient (emergency cases) or diseases which are not life threatening (non-emergency cases). In theory, the morbidity statistics and the statistics for reasons for hospital admission could draw us a picture of the needs for hospital services. However, because the primary health care services in Romania are not yet functioning in an optimal way, the cases that should be resolved in the first line are mixed with the rest of the 'real' hospital cases. For the moment it is not possible to differentiate according to justification of hospital admission[19].
The demand of the population is more straightforward because this is reflected by the reasons for hospital admission. Nevertheless, hospital admissions due to lack of alternatives can't be distinguished nor can unmet demand be identified.

Notwithstanding these remarks, it is possible to provide an answer to the services that should be available in the different levels of the hospitals, based on the purpose of this kind of hospital and the morbidity and mortality data available. It should be emphasised that all the regions and counties should preferably provide the same scope of services to be in line with the first global objective of the National Strategy for Health Services, namely access and equity.

The level of decentralisation of the services, especially the highly specialised services, will be decided mainly by the availability of specialised personnel and the cost of heavy equipment needed to make these services functional.

[19] An assessment of justification of hospital admissions in Romania utilising the Appropriateness Evaluation Protocol might be useful to understand better which share of the hospital admissions can be resolved at a lower level. (Lang, T. and others, A European Version of the Appropriateness Evaluation Protocol. International Journal of Technology Assessment in Health Care, 15:1 (1999), 185-197

The database[20] of the National School of Public Health gives an overview of the hospitalisations per type of service for 2006[21].
These data are rearranged in Table 11.

Table 11: Hospitalisation per type of service

Type of service	% hospitalisations	Cumulative %
General Surgery	10.3	10.3
General Medicine	15.3	25.6
Obstetrics and Gynaecology	12.7	38.3
General Paediatrics	9.7	48.0
Newborns	4.3	52.3
Specialised surgery	10.9	63.2
Specialised medicine	29.4	92.6
Specialised paediatrics	4.1	96.7
Orthopaedics	3.2	99.9

Source: Database NSPHHM

Around 50% of the hospitalisations in 2006 were in ‘general’ services. We have to take also into consideration that from the 29.4% of hospitalisations in services of ‘specialised medicine’ a considerable share, more than 30%, consists of pneumology and cardiology cases (see further).

Table 12 with a listing of the hospital admissions according to diagnostic categories for 2006 leads to the same conclusion. (Only the first 15 causes are reproduced, but they represent more than 90% of the admissions in Romania.)

Table 12: Hospitalisation per diagnostic category

	Diagnostic category	% admissions	Cumulative %
1	Respiratory system	10.88	10.88
2	Circulatory system	10.62	21.50
3	Musculoskeletal system	8.84	30.34
4	Digestive system	8.75	39.09
5	Pregnancy and Births	8.47	47.56
6	Nervous system	6.81	54.37
7	ENT	6.05	60.42
8	Hepato-biliary system and pancreas	5.59	66.01
9	Skin and subcutaneous tissue	4.36	70.37
10	Urinary system	4.35	74.72
11	Newborns (healthy and sick)	4.02	78.74
12	Mental diseases	3.94	82.68
13	Female reproductive system	3.69	86.37
14	Endocrinology, nutrition and metabolism	2.96	89.33
15	Ophthalmology	2.50	91.83

[20] Accessible at: http://www.drg.ro
[21] only the hospitals already included in the DRG based payment scheme

Source: Database NSPHHM

2.2.4.2. Number, type and size of hospital at the county level

The first and key recommendation is to have at least one modernised and efficient hospital per county, with the main medical and surgical services, including pre-hospital emergency units (with Medical Intensive Care Transport), ICU and all the clinical support services.

The size of this county hospital depends on the population of the county, but should be in conformity with the optimum size presented in § 3.2.2.

Afterwards, concerning what the law N°95 calls 'local hospital', that is to say rural, town and municipal hospitals, the preservation of the medical and surgical specialities will depend on the availability of medical resources and financial resources.

For rural and town hospitals, our recommendation is to transfer the surgical and medical specialities to the county hospital. In compensation, the county hospitals can organise advanced and mobile specialised consultations in local hospitals.

Concerning the municipal hospitals, the preservation of surgical and medical specialities will depend on both the healthcare needs of the population, the distance to the county hospital, the medical resources available, and the baseline of activity.

Recommendation:
The County Hospital

There should be at least one modernised and efficient hospital per county, with the main medical and surgical services, including pre-hospital emergency unit (with medical intensive care transportation), ICU and all the clinical support services.

Recommendation:
The Local Hospital

The preservation of medical and surgical specialities in local hospitals will depend on the baseline of activity and the availability of medical resources (doctors and nurses) and financial resources.

In compensation, the county hospital can organise advanced and mobile specialised consultations in local hospitals.

Recommendation:
Financial and human resources available

If the key criterion to organise, in a geo-demographic way, the different hospital facilities, is the response to healthcare needs of the population, MoH should also take into account both human and financial resources available, and first of all the demography of medical doctors and nurses.

2.2.4.2. At the regional level

In each capital of the eight Euro-regions, an Emergency Regional Hospital will be set up by a new construction or upgrading and rehabilitation of the existing county hospital.

Indeed, as it is mentioned in the project of ordinance concerning the classification criteria of the different emergency hospitals, the article 1 of the project concerning the Emergency Regional Hospital foresees *"besides the assurance of the emergency assistance at a regional level, this type of hospital has the role of an emergency county clinic hospital in the county it belongs to"*.

After different visits in the country (Iasi, Constanta, Brasov, Buzau, Bucharest, Teleorman, Giurgiu), we have noticed that the Local Health Authorities have scheduled to construct the new Emergency Regional Hospital in addition to the existing hospitals, and without any healthcare strategic plan at both regional or county level. Regarding the difficulties of the country in terms of medical resources and nurses, it is important to apply this article 1 (project), and to oblige each new Regional Hospital to play the role of the county hospital in the county it belongs to, and to construct this Regional Hospital in replacement of the existing county hospital.

When the healthcare map will be operational, this risk of setting up new hospitals with an increase of the number of beds will not exist anymore. While waiting for the implementation of this healthcare reform, no additional bed should be set up, that is to say that the regional hospitals must be implemented in replacement of the county hospital in the county it belongs to.

The creation of the Regional Emergency Hospitals is an excellent opportunity to introduce prototypes of 'modern hospitals' in Romania.
To achieve this, the key principles and criteria mentioned in this report should be applied from the beginning:

- Optimal size of 400 (up to 500) beds
- Implementation at an important scale of day hospitalisation, one-day surgery, home care, advanced strategies and telemedicine
- Collaboration with first line health services and ambulatory specialist care to reduce the number of inappropriate admissions

- Collaboration with referring hospitals for counterreferal for aftercare
- Decrease Average Length of Stay by streamlining diagnostic and treatment pathways
- Cooperation with other sectors for social and elderly care

Most of the existing County Hospitals are not well adapted to be transformed in modern regional hospitals. So, from a medico-technical point of view, a new construction seems to be the most reasonable solution.

The transfer of the existing County Hospitals, sometimes with a bed count largely exceeding the amount in the new hospitals, will not be an easy task. It will have to be well coordinated and supported at all levels of the health sector and the political administration. The biggest challenge will be to achieve a mentality change of both the health professionals and the population and to convince them that a high-tech, modern, optimal-sized hospital can perform the same and even more tasks than the huge hospitals they are used to. There are plenty of well functioning examples of this kind of hospitals in other countries which can be referred to in order to substantiate this approach.

Recommendation:
The Regional Hospital

In each capital of the eight Euros-Regions, a tertiary care emergency Regional Hospital should be set up by a new construction or rehabilitation and upgrading of the existing county hospital.

The Regional hospital should replace the County hospital in the county where it is located and should play the role of County hospital in the county it belongs to.

The configuration of each Regional Hospital (projected activity, provisional investment and budget, human and financial resources needed, with impact on hospital operational costs) should be presented in a Hospital Strategic Plan, officially validated by MoH.

2.2.4.3. The future of specialised hospitals and institutes

The current Romanian hospital network is inadapted as regard to the healthcare needs of the population and the new conceptions of hospital organisation and management in the western countries.

This inadaptation concerns first of all the preservation of specialised hospitals, in different medical specialities. For example, Romania counts 13 infectious diseases hospitals.

The medical managers of these specialised hospitals are used to argue that it would be totally impossible to close down these hospitals because of the specific socio-economic situation of the Romanian population and because of the high level of infectious diseases in this country. Actually, the medical staff of these infectious diseases hospitals is afraid about their future; they do not want to give up their hospital and they have a corporatist reaction.

The future of TB hospitals

The group of pneumophtysiology and TB hospitals in Romania possesses a total of 7,795 beds. Compared to the other Member States of the European Union, especially the EU-15, this seems an oversupply which is not backed up by medico-technical justifications of present TB treatment schemes. It is true that the extremely high incidence of tuberculosis in Romania with 130.54 new cases per 100,000 inhabitants in 2004 makes this a politically sensitive issue at national and international level. For this reason, the consultant proposes to MoH to prepare a specific integrated medical services TB plan, including healthcare education programs, prevention, detection programs, ambulatory and home care in order to schedule, on a 5 to 7 years period, the progressive reduction of TB hospitals and finally, the comprehensive transfer of new pneumophtysiology departments to the county hospitals.

Equipment and human resources will be transferred to the county or regional hospital, with the creation of infectious diseases departments, or the integration of this activity in internal medicine. If the level of infectious diseases (and especially TB) continues to be high, these clinical departments will also be bigger than in the rest of European Union.

For the other specialised hospitals (paediatrics, gynaecology-obstetrics) a plan of integration of these institutions in the county and regional hospitals should be prepared with a deadline of transfer within five years.

This reorganisation with transfer and integration of specialised hospitals should be associated with the development of new delivery models of medical assistance, within the framework of an integrated medical services model.

Concerning the institutes, the situation is different. In the majority of the cases, these institutes should be integrated in the clinical regional hospital (to avoid duplication and fragmentation of services), with the possibility of maintaining a certain level of autonomy at both medical and research level.

Concerning oncology, the situation is amazing: cancer is the second cause of mortality in the country[22] and there are only two oncology centres in the whole country. With similar epidemiological situations in European Union, several countries have decided to implement a specific cancer plan, including education, prevention, early detection program, and regional cancer centres. In Romania, the decision belongs to the Ministry of Health with the choice of either setting up special cancer centres at the regional level, or creating specific oncology departments in the hospitals.

Taking into account the high level of cancer mortality in Romania, and the lack of appropriate services and equipment, the consultant recommends the adoption of a 'National Cancer Plan', officially decided by a Law, with the setting up of Regional Oncology Centres, as a particular effort to improve the quality of medical assistance.

Recommendation:
Specialised Hospitals and Institutes

The specialised hospitals should be integrated in County or Regional hospitals within a defined timeframe.

This reorganisation with transfer and integration of specialised hospitals should be associated with the development of new delivery models of medical assistance, within the framework of an integrated medical services model.

The consultant proposes to MoH to prepare a specific integrated medical services TB plan, including healthcare education programs, prevention, detection programs, ambulatory and home care, day hospitalisation, in order to schedule, on a 5/7 years period, the progressive reduction of TB hospitals and finally, the comprehensive transfer of new pneumophtysiology departments in County Hospitals.

Taking into account the high level of cancer mortality in Romania, and the lack of appropriate services and equipment, the consultant recommends the adoption of a 'National Cancer Plan', officially decided by a Law, with the setting up of Regional Oncology Centres, as a particular effort to be done to improve the quality of medical assistance.

The Institutes should be integrated in the Clinical Regional Hospitals, with the possibility of maintaining a certain level of autonomy at both medical and research levels (to avoid duplication and fragmentation of services).

[22] Cancer mortality in Romania is 25 % higher than in EU 15 countries – Cf. § 1.3.

2.2.5 Restructuring

To set up the new major key strategic orientations, concerning types and number of hospitals, optimum size, the new distribution of clinical services and the priorities of investment and equipment, it is important to proceed to a global restructuring of the current hospital network.

This necessary reconfiguration of the hospital network supposes to define the criteria of restructuring, the standards and norms to apply and the different ways of restructuring (grouping together, merging or closing down). To prepare the new hospital strategy, a special attention should be paid to the future of rural, town and municipal hospitals.

2.2.5.1. Criteria and standards to be applied

Restructuring a hospital means to change its orientation, to reduce or to increase its activity, to transfer clinical services, to merge with another entity or, finally, to close down the whole hospital, or to build a new one.

Generally, restructuring means a decrease or a transfer of activity as the consequence of a cost containment program or the lack of human resources. Before launching any restructuring process in a hospital, the decision makers should define precisely the criteria to be applied. The main criteria of restructuring are accessibility, including financial and geographical accessibility, quality and security of care and savings.

Concerning the criteria:

- Accessibility:
  Before transferring any clinical activity, for example surgery, it is convenient to take into account the distance to be crossed to reach the new clinical department. If it is a long distance, it is important to foresee medical transportation. But in the majority of the cases, the problem does not arise in these terms: indeed, in a lot of local hospitals, the main problems are the lack of medical resources (surgeons, anaesthesiologists, radiologists, gynaecologists) or an insufficient medical activity.

- Quality and security of care:
  Quality and security of care are directly linked to the availability of equipment and drugs, skills and competences of the medical staff and the level of activity. In most of the medical and surgical specialities, quantity = quality. That means that in case of an insufficient activity, the medical staff will not get enough practice to reach a high level of quality and security.

- Savings:
  Restructuring is often likened in cost containment, financial crisis, staff reduction, and savings. Actually, before launching any restructuring process, a financial plan

should present accurately the expected savings. Effectively, the precise amount of savings expected should be known before launching any procedure, and the 'financial savings' should be compared with the non-financial disadvantages (risk of social trouble and strikes, political issues).

Concerning the standards and norms to be applied:

In relation to quality and security of care, it is important to foresee standards and norms in terms of baseline of activity, because a sufficient activity is a pre-requisite for quality. For example in France, the new baselines of activity in oncology foresee a minimum of 80 patients followed to have a chemotherapy cancer activity. In radiotherapy (ambulatory), each unit with at least two equipments should treat a minimum of 600 patients per year[23].

In surgery, for each operating theatre, the baselines of activity vary from 1 500 to 3 000, and sometimes 4 000 interventions per year, depending on the number of surgeons and anaesthesiologists available in the Region. These baselines are useful for two reasons. The first one is to guarantee quality and security of care, and the second reason is to take into account the specific situation of the medical demography in the country.

In Romania, for some medical and surgical specialities, a special study should be launched to determine per region and per county, in surgery for example, the number of operating theatres able to work in good conditions, with sufficient medical staff (surgeons and anaesthesiologists) for a predetermined activity. Thanks to this study, the MoH will know precisely which baseline to apply (number of interventions per year and per operating theatre).

These studies should concern all the medical activities for which a lack of medical resources exists.

Recommendation:
Hospital Restructuring Policy

Restructuring a hospital means to change its orientation, to reduce or to increase its activity, to transfer clinical services, to merge with another entity or finally to close down the whole hospital, or to build a new one.
Before launching any restructuring process, a financial plan should present accurately the expected savings, with a comparison with the non financial disadvantages (risks of social trouble and strikes, political issues).

[23] Arrêté du 29 mars 2007 fixant les seuils d'activité minimale annuelle applicables à l'activité de soins de traitement de cancer. JO 30 mars 2007, Texte N°68 sur 172.

Recommendation:
Baseline of activity

In relation to quality and security of care, MoH should foresee standards and norms in terms of baseline of activity, for the different medical and surgical clinical activities (minimum number of patients, number of surgical interventions, number of deliveries, number of patient treated per high-tech equipment).

2.2.5.2. The future of rural, town and municipal hospitals

To restructure, the key question is grouping together, merging or closing down a part or the whole of the hospital. Of course, it is easier to transfer a part of medical activities from one hospital to another. Transferring activities without closing down is also easier in terms of social and political impact of this restructuring.

But in some cases, the decision makers are obliged to close down the hospital. This will be the case for different specialised hospitals which should be transferred to the county or to the regional hospital. But whenever possible, it would be better to maintain an outpatient or medico-social activity instead of closing it down completely. This issue is critical concerning the future of local hospitals. The consultant agrees with the MoH's proposal, consisting in transferring at least an important part of local hospitals to the Ministry of Social Affairs.

2.2.6 A new strategy for equipment

There isn't a European norm or standard concerning high-tech equipment. The investment policy of a country depends of:

- Epidemiological profile of the population;
- Public health priorities;
- Geographical features and conditions of accessibility;
- Healthcare programming including the distribution of medical activities and high-tech equipment, for example at regional level;
- Financial resources available for equipment investment plans but also for the funding of the future running costs of these equipments (consumables, maintenance, etc.);
- Medical and paramedical 'demography' with regard to the medical speciality considered;
- Minimum levels of activity defined per equipment to guarantee the profitability of the equipment, as well as the quality of the service.

Beyond these considerations, Romania presents unmistakably a low ratio of high-tech equipment compared to other European countries. One of the priorities in terms of investment should be to reach a level of high-tech equipment comparable with its European neighbours.

2.2.6.1. Estimation of high-tech medical equipment needs in Romania

Very concretely, in order to obtain an estimation of the number of necessary equipment to obtain the level of European countries, the consultant suggests to base this appraisal first on the ratio applied in Portugal, and secondly on the ratio proposed by the GVG study[24].

- Estimation Option N°1

Table 13: Ratio for heavy equipment in Portugal

NUMBER OF INHABITANTS PER UNIT OF HEAVY EQUIPMENT IN PORTUGAL (1997)

Equipment	Situation in 1997 Population per equipment	Necessary number of units	Existing units	Number of new units to be foreseen
Computed Tomography	80 000	**270**	**75**	**195**
Magnetic Resonance Imaging	350 000	**62**	**24**	**38**
Angiography	330 000	**65**	**21**	**44**
Lithotripsy	800 000	**27**	**NA**	**NA**
Gamma cameras	250 000 - 300 000	**86 - 72**	**NA**	**NA**
Linear Accelerators	600 000	**36**	**16**	**20**
Cobalt Therapy	730 000	**30**	**NA**	**NA**
Radiotherapy	330 000	**65**	**0**	**65**
Haemodialysis (posts per million inh)	209	**4 520 posts**	**NA**	**NA**

Source: Health Care Rationing in Portugal. A retrospective Analysis – Associação Portuguesa de Economia da Saúde. Carlos Gouveia Pinto – Filipa Aragão – January 2003

[24] Book 4 – Final report – Planning and regulation of the Health Care Delivery System

- Estimation Option N°2

Table 14: Ratio for heavy equipment GVG study

RATIO FOR THE ADEQUATE PROPORTION BETWEEN MAJOR CAPITAL EQUIPMENT AND INHABITANTS PROPOSED BY THE GVG STUDY

Type of major Capital Equipment	Inhabitants		**Necessary number of units**	**Existing units**	**Number of new units to be foreseen**
	From	To			
Computed Tomography	160 000	200 000	**135 – 108**	**75**	**60 – 33**
Magnetic Resonance	260 000	320 000	**83 – 67**	**24**	**59 – 43**
Angiography	250 000	350 000	**86 – 62**	**21**	**65 – 41**
Neuro Angiography	500 000	800 000	**43 – 27**	**NA**	**NA**
Radiotherapy					
• Telecobalt	1 350 000	1 950 000	**16 – 11**	**0**	**16-11**
• Linear Accelerator	500 000	750 000	**43 – 29**	**16**	**27 – 13**
Nuclear Medicine	160 000	280 000	**135 – 77**	**NA**	**NA**
PET	1 000 000	3 000 000	**22 – 7**	**NA**	**NA**
Lithotripsy	500 000	1 000 000	**43 - 21**	**NA**	**NA**

Source: Book 4 – Final Report – Planning and Regulation of the Health Care Delivery System – National Health Rationalisation Strategy – April 2004 – GVG

Whatever the applied ratio is, high-tech equipment investment should constitute a priority of the national strategy for Hospital infrastructure development.

Table 15: Synthesis ratio heavy equipment Portugal - GVG

SYNTHESIS RATIOS GVG AND PORTUGAL

Equipment	Necessary units (low bracket)	Necessary units (high bracket)	Existing units	Number of units to be foreseen (low bracket)	Number of units to be foreseen (high bracket)
Computed Tomography	**135**	**270**	**75**	**60**	**195**
Magnetic Resonance Imaging	**62**	**83**	**24**	**38**	**59**
Angiography	**62**	**86**	**21**	**41**	**65**
Linear Accelerators	**29**	**43**	**16**	**13**	**27**
Radiotherapy	**65**		**0**	**65**	

2.2.6.2. A new medical equipment procurement policy

At present, medical equipment for all the Romanian hospitals is bought centrally by the Ministry of Health. The local authorities and/or hospitals are only authorised to buy directly small devices with a limited price.

This centralisation of the medical equipment procurement process can lead to important dysfunctions: sometimes the equipment delivered is not adapted to the hospital needs and priorities. The users are not consulted and the technical specifications are sometimes not in conformity with their expectations, entailing a lack of motivation.

The equipment provided in the different hospitals of the country doesn't fall within the scope of a regional approach in terms of equipment planning and organisation of the referral system. It is also difficult to manage, at the central level, the appropriate articulation between the equipment delivery and the preparation of the premises (pre-installation works), and there is sometimes a lack of information of the hospital about these prerequisites to be carried out before the installation of the equipment (availability of the budget for civil works, training plan, programming of the provisional acceptance procedure…). Due to the situation presented above, in certain cases the equipment stays in boxes during several weeks or months and loses part of the warranty period.

Within the framework of the decentralisation process currently in progress in Romania, the medical equipment procurement should be devolved to the regional level. The Regional Health Authority (Cf. § 4.3.1.) should be responsible for the programming and the procurement of medical equipment and devices, as a result of the Regional Healthcare Map based on geo-demographical and population needs.

On one hand, the region is big enough to obtain a ‘volume effect’ in terms of quantities purchased and conditions obtained from the suppliers (notably in terms of economies of scales and maintenance conditions) and, on the other hand, the principle of subsidiarity (the most appropriate level of governance to respond to a given problem) is respected.

The pre-condition to the implementation of this decentralisation of medical equipment procurement policy is the professionalisation of the ‘purchasing function’ in each region, in accordance with public procurement rules.

Bringing medical equipment procurement procedures closer to the users would permit, in our opinion, a very positive impact, such as:

- The strengthening of the regional approach in terms of ‘regional equipment plan’ and ‘regional medical equipment network’ based on geo-demographic criteria and on the organisation of the regional healthcare system;
- The improvement of the conditions of delivery and installation of the equipment (with notably a better coordination between the pre-installation requisites and the delivery of the equipment);
- A better management of warranty conditions and maintenance contracts (including the availability of spare parts);
- A bigger satisfaction of the users who should be involved in the definition of equipment needs. In return, these users should be given more responsibilities in terms of performance of the equipment (to be formalised in the internal management contract between the hospital manager and the different clinical departments);
- Last but not least: every acquisition of medical equipment will be apprehended as a component of the regional equipment plan and of the regional investment plan, defined and programmed for a medium term period of five years.

To conclude, this decentralisation of medical equipment procurement should lead to a bigger coherence and rationality in the realised investments.

These investments can take different forms and objectives:

- The investments of replacement or productivity which are intended to substitute obsolete equipment. They allow to reduce the costs of maintenance but also to improve the quality of the production.
- The investments of expansion which have for objective to answer to an increasing demand, even to answer to an objective of diversification or complementarity,
- The strategic investments which have for main objective to integrate the new technological progress into the regional healthcare system.

2.2.6.3. Maintenance Policy

Globally, in Romania, medical equipment and installations suffer from a lack of maintenance, with the exception of some recent devices which benefit from outsourced maintenance services, directly negotiated by the Ministry of Health (X-ray equipment notably).

The unavailability of medical equipment can lead to important dysfunctions in the clinical departments of a hospital:

- dissatisfaction of the patient who cannot benefit from the exam prescribed to him;
- negative impact on the quality of care and outcomes of surgical and medical speciality treatment;
- productivity downturn for the staff of the service who can not work in good conditions;
- extension of the average length of stay for the patients with results tests pending…

It is true that a maintenance service doesn't generate financial receipts, but its existence is always justified by the savings it allows and by the fact that it contributes to the quality of care provided to the patients.

The lack of a maintenance policy and of a systematic approach of this question increases considerably the costs and the quality of these services, as presented in Table 16:

Table 16: Importance of maintenance services

WITHOUT ORGANISATION OF MAINTENANCE SERVICES	WITH DULY ESTABLISHED ORGANISATION OF MAINTENANCE SERVICES
Undergone breakdown	Necessary interventions and services under control
No cost containment	Follow-up and costs control
Difficult planning	Functional and adequate planning
Difficult to implement outsourcing (because difficult to define the services to be outsourced)	Outsourcing of certain services accurately defined

From a general point of view, there is no culture of maintenance in the Romanian public hospitals.

Upgrading of hospital infrastructure and equipment supposes of course important investments for the renewal or the improvement of the current installations, but it implies also to take all measures needed to ensure the future good functioning of this new devices and facilities.

The maintenance of equipment begins at the moment of its purchase. The future maintenance conditions and services should be negotiated at the same time as the

procurement. The future conditions and costs of maintenance offered by the supplier should be integrated within criteria leading to the selection of a company, in the same way as the price of acquisition.

In Western Europe, most of the hospitals subcontract the maintenance of medium and high complexity equipment, representing 4 to 10% of the total number of medical equipment installed in the hospital, but representing 30% to 60% of the total value of all this equipment.

In the context of the present strategy for hospital infrastructure development in Romania, maintenance services should be systematically introduced with every new procurement of equipment and a culture of maintenance should also be spread in Romanian public hospitals, as a responsibility of the management team (including forecast of the necessary budget). It is important to point out that the future maintenance costs of equipment represent between 7% and 12% of its cost price depending on its complexity level.

Internal, outsourced maintenance, mixed organisation? The choice and the sharing out between these different modalities will depend on the existing human and material resources, as well as on the knowledge and skills available. Considering the lack of wide-spread competences in Romania, one possible scenario could be to create a regional maintenance workshop in charge of main interventions in the different hospitals of the Region. Hospitals would assume directly only the first or second level of maintenance for some determined equipments.

Implementing this activity supposes to identify beforehand the services to be outsourced and those to be realised internally and to define the division of responsibilities between:

- the Regional Health Authority (in charge of procurement procedures which should include the negotiating of maintenance services);
- the role and responsibilities of the Regional Maintenance Workshop (notably in terms of performance of the services to be provide and deadline for repair);
- the hospital and the services to be fulfilled internally.

Improving the availability of functioning medical equipment, due to an efficient maintenance policy implemented in the whole country and enhancing equipment management practices should constitute an integral component of the strategy for hospital infrastructure development in Romania.

Recommendation:
A new strategy for equipment

Within the framework of the decentralisation process currently in progress in Romania, the medical equipment procurement and maintenance process should be devolved to the Regional level. The Regional Health Authority should be responsible for the programming and the procurement of biomedical equipment and devices, as a result of the Regional Healthcare Map based on geo-demographical and population needs.

3 PRE-REQUISITES FOR THE STRATEGY

To achieve the hospital infrastructure development strategy, which is presented in the part 2, different conditions and pre-requisites should be fulfilled. These main conditions concern:

- the implementation of a new healthcare policy, upstream and downstream of the hospital network (§ 3.1.);
- the financing of hospital investment and its impact on operational costs (§ 3.2);
- a global governance organisation able to manage the new healthcare and hospital systems, including decentralisation and management development (§ 3.3 and 3.4.);
- the strengthening of education and management skills, for professional and ethical management.

3.1. Implementation of a new healthcare policy, based on the Law 95

3.1.1 Development of Primary Health Care and Family Medicine

A good functioning system of first line health services is essential for an optimal performance of the health care system as a whole as well as for the health of the population. The quality, the performance and the efficiency of the hospital sector depends directly on the quality and efficiency of the PHC.

International studies show that the strength of a country's primary care system is associated with a decrease in all-cause mortality, all-cause premature mortality, and cause-specific premature mortality from major respiratory and cardiovascular diseases. Furthermore, increased availability of primary health care results in better access, improved equity and higher patient satisfaction. Aggregate healthcare spending will be reduced with no adverse effects on quality of care or patient outcomes.[25]

To serve its purpose fully the primary health care system and the hospital system need to have a harmonious collaboration. The relationship of the hospital towards the primary health care system has shifted from a reactive response to a more proactive partnership with primary care. Strategies like the development of home care, ambulatory follow-up of chronic diseases and even nursing homes to diminish the number of hospital admissions

[25] Atun R, What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services?, WHO Europe, Health Evidence Network report, 2004

imply the transfer of part of the responsibility and coordinating role towards the family doctors.

In Romania there is still a large margin to expand the performance of the family doctors and to fulfil their role in the first line – hospital collaboration as is shown by the high share (some 50%)[26] of hospital emergency admissions (thus without referral from family doctor or specialist). Worldwide 80 to 90% of the presented health problems can be solved at the first line health care structures, but only if some conditions are met: good accessibility and acceptability, permanence, offer of integrated care, etc.

Some key issues will have to be addressed in the near future for developing a well functioning primary health care system. Many of the problems encountered are related to the financing system. Family doctors are, like the other health professionals, severely underpaid. Furthermore, the budget they receive to finance the functioning of their cabinets is not sufficient and for example doesn't allow the purchase of the necessary equipment, resulting in a low resolutive capacity and ensuing loss of confidence by the population.

Permanence is poor, especially in the rural areas, because the doctors don't always live in the same community as where they practice. The initiative of the MoH to build 3,000 cabinets with adjacent housing in the rural areas might alleviate this problem. A better endowment for the permanence centres and a stricter control on its functioning is also indicated.

3.1.2 Development of outpatient and ambulatory care

Driven by financial restraints and supported by the development of new technologies and new treatment methods, outpatient care and ambulatory care has proven an alternative for hospital admission without a loss in quality of care for selected health problems.

For this reason, the pressure to reduce hospital beds without depriving the population from the necessary treatment, has been accompanied in many countries by a concomitant increase in number of patients treated in ambulatory care.

Another advantage of ambulatory care is that for some interventions or treatments the care is not necessarily linked to the hospital building and care can be brought closer to the population by ambulatory teams.

Outpatient and ambulatory care is per definition not permanent. It therefore requires a robust administrative structure for organisation. It will also imply a change in the mentality of the population to accept that their treatment will be provided on appointment and not on simple demand.

Another aspect to be taken into account is the global organisation of the financing of the hospitals. With the present offer of inpatient hospital beds and the occupation rate of the

[26] Annual Report 2006, National Health Insurance House

hospitals, a shift from inpatient activities to ambulatory services with a lower tarification actually results in a loss of income for the hospitals. The motivation to develop ambulatory care remains thus low by lack of incentives. The NHIH intends to include in their contracts with the hospitals a clause on an obligatory minimum threshold of ambulatory care but this authoritarian and restrictive approach is likely to meet considerable resistance. A more global approach seems indicated: development of ambulatory care activities with a concurrent decrease in number of hospital bed and financial and technical support for the administrative organisation of outpatient and ambulatory activities.

3.1.3 Complementarity with the social sector

Objective 9 from the National Strategy regarding the Health Services foresees the transfer of care for social cases and the elderly to units and organisations from the local authorities or from the private sector. These cases are presently occupying hospital beds, not only in chronic hospitals but also in acute hospitals, by lack of alternatives for adequate care. In 2004 some 110 hospitals were already converted to social health units with transfer of responsibility to the Ministry of Social Affairs. But to cover all the needs the budget of this Ministry should be augmented substantially.

With a careful and rational reorganisation of the hospital sector, several hospitalisation units will become redundant in the coming years and they seem to be ideal candidates to be converted for social and elderly care. The care for these cases in structures with lower technical level will result in a decrease in the cost of care per case and thus represent a considerable saving for the health sector. From a global national perspective it is however unrealistic to transfer the burden for financing of these cases to another ministry or to local authorities without a redistribution of the budget for health care.

3.1.4. Permanence of care, continuum of care: the conditions to set up medical integrated services

The major problem of the Romanian PHC is the lack of a permanence of care, not only in rural areas, but also in small towns. Usually, in rural areas, it could be very difficult or quite impossible to get a medical consultation after 3 p.m. during the week and during the whole week-end and the nights.

This situation obliges the patients to go straight to the hospital. The improvement of the hospital system impose a huge change in PHC, with the absolute priority to set up a real permanence of care, with the availability of a family doctor 24/7 or, if it is not possible, considering the lack of family doctors, with nurses 24/7.

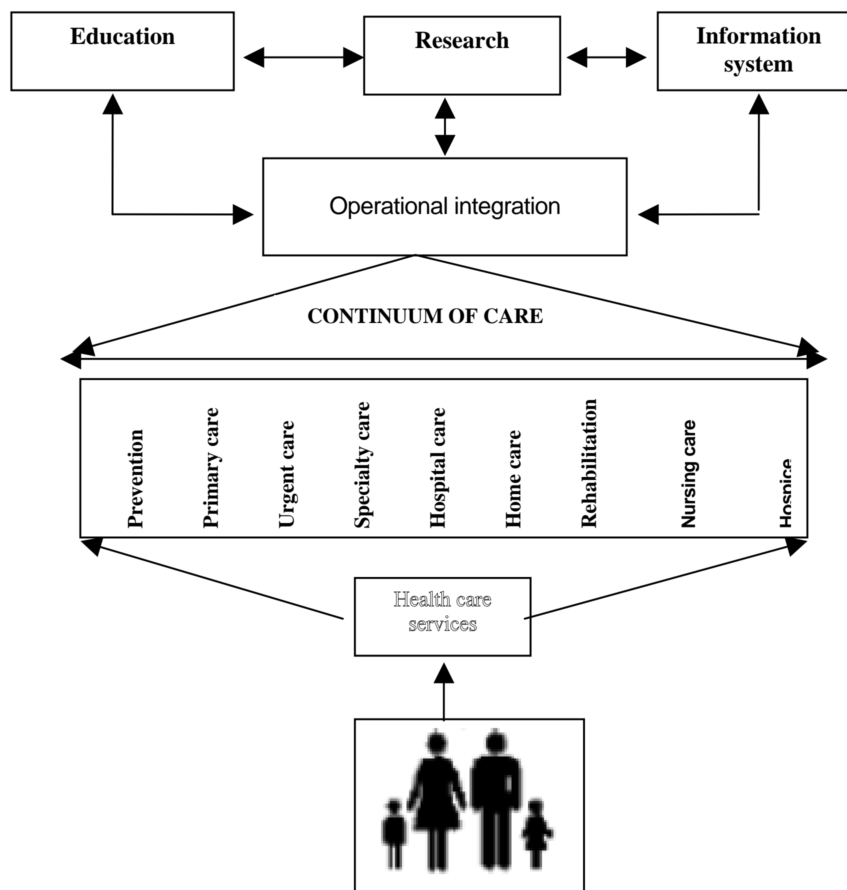
If the implementation, all over the country, of a permanence of care of PHC, is the first condition to avoid an inappropriate utilisation of hospital medical services, the second condition is to set up a real continuum of care, from prevention to ‘post-care’, including

home care and rehabilitation, and more specifically for elderly care, nursing homes and other long term facilities.

Of course, it is very difficult to manage a continuum of care, organising discharges at the deliberate moment, to limit inpatient admissions and to prefer outpatient and ambulatory treatments and, first of all to achieve a general coordination of the continuum of care, thanks to a good information system (computerised medical record) and a good operational integration.

These two objectives permanence of care and continuum of care should be two key priorities of the future regional health authority.

Figure 10: Continuum of care[27]



[27] Snyderman R., Developing an integrated healthcare system at http://conferences.mc.duke.edu.

Recommendation:
Healthcare Policy, Hospital Policy

The improvement of a hospital policy depends directly on the general healthcare policy, and first of all on the quality of PHC. In order to reduce inappropriate hospital service utilisation and to change the hospital-centrism trend, MoH and the Regional Healthcare Authorities should develop Primary Healthcare and Family Medicine by implementing a real permanence of care, which is dramatically lacking today, and a continuum of care focused on outpatient and ambulatory services.

Outpatient and ambulatory care have to be developed at a higher scale and need to be financially attractive for the hospitals. The complementary with the social sector should also be strengthened.

3.2. Funding and investment policy

In 2005, Romania was invited to elaborate in the year preceding its accession, a National Reform Programme in compliance with recommendations of the European Commission and the practice of the other Members States.

The Ministry of European Integration, designated to coordinate the elaboration of the document, in cooperation with the line ministries and the interested public institutions, finalised this National Reform Programme.

The reform of the social and health systems is listed among the priorities presented in this document.

In this context, restructuring the health care system is a short and medium term priority of Romania, aiming, on one hand, to increase the quality and the diversity of services provided to citizens, undergoing the National Health Programme Organisation and, on the other hand, to rehabilitate the health care system infrastructures.

The three pillars of the legislative package adopted in the early months of 2006 provide for significant changes in the health care system: effective management of public funds, launching infrastructure projects for the rehabilitation of the healthcare system, remunerating the medical personnel and raising their responsibility awareness.

In accordance with the MoH, the main investment efforts shall be directed at the rehabilitation or construction of 20 county hospitals and at improving the quality of medical equipment. At the same time, certain health units and wards have to be closed

down as they no longer fulfil addressability criteria. There are also plans to outsource certain services.[28]

3.2.1. Sources of funding

The improvement and restructuring of the Romanian hospital network, including the construction of eight new regional hospitals[29] and new county hospitals, supposes considerable funding. Four different sources of funding exist: national budget and regional and local funds, the European Union structural funds and the public-private partnership.

3.2.1.1. National and local budget

For the year 2007, the budget allocated to health amounts to 4.3 billion Euro, the highest ever allocated to this sector, representing more than 4.10% of GDP, double compared to the amount allocated in 2004 (2.2 billion Euro)[30].

The announced priorities are:

- construction of eight regional university emergency hospitals;
- construction or rehabilitation of 20 county emergency hospitals;
- modernisation of existing hospitals;
- modernisation of hospital equipment;
- acquisition of 1 000 ambulances.

For this investment programme, the MoH will use, for a part, the national budget, and for the rest, one or several loans negotiated on the Banking market or with European Financial Institutions.

At both regional and local level, the local authorities do not have the financial means to support this investment effort.

3.2.1.2. European Union Structural funds

Another source of funding for healthcare infrastructures and equipment can result from the European Structural Funds.

At the end of January 2007, the Romanian Ministry of European Integration submitted to the Ministry of Public Finance (national coordinator of Community Funds), the Regional Operational Programme for approval.

[28] Romanian National Reform Programme – Lisbon Strategy – 2006 – Ministry of European Integration
[29] In replacement of the existing county hospitals
[30] Speech by Prime Minister Calin Popescu –Tariceanu on the presentation of the draft budget for 2007

The financial resources allocated to the Regional Operational Programme (ROP) for the programming period 2007-2013 are 4.474 billion euros, of which 3.726 billion euros represent co-financing from the European Regional Development, the remaining representing national public funds and private funds. The sums provided for are about:

Table 17: Financial resources Regional Operational Programme per year

Years	Sums provided (Million Euros)
2007	396
2008	485
2009	530
2010	629
2011	668
2012	797
2013	968
TOTAL	**4 473**

The ROP aims to bring all regions to a comparative level of development both amongst themselves and with the other EU regions. For that reason, the more than 4 billion Euros provided for the ROP will be distributed inversely proportional to the level of development calculated as regional Gross Domestic Product per capita, adjusted with population density, as follows :

Table 18: Financial resources Regional Operational Programme per region

Regions	Sums provided (Million Euros)
North-East Region	708
South-East Region	575
South Region	618
South-West Region	608
West Region	449
North-West Region	524
Centre Region	473
Bucharest-Ilfov Region	384
TOTAL	**4 339**

This distribution of funds has an indicative role, as funds can be reallocated from one region to another, according to the absorption capacity. It should also be mentioned that these sums do not include the Technical Assistance Funds provided to all regions. These funds will be managed by the ROP Management Authority.

These funds will be used to finance projects with major impact on regional and local development: rehabilitation and modernisation of transport, educational and health infrastructures, enhancement of business environment by developing business support structures (industrial, technological, logistic, business parks, etc.), improving tourism and cultural potential, supporting the development of urban centres with economic potential in order to turn them into engines for regional and local development.

From this total amount of financial resources allocated to the ROP for the period 2007-2013, the consultant doesn't know which part will be allocated to healthcare programs and, more specifically, to hospital investment. The MoH informed us that the amount assigned to hospital investment will be about 200 millions €

3.2.1.3. Public-private partnerships

Besides these sources of funding (national budget, loans, structural funds), it is possible to use public-private partnership programs, with the benefit of using private funding, and not the State budget, the payment being insured by an annual rent, that is to say, on the functioning budget of the hospital.

In the GVG final report[31], the experts pointed out a specific opportunity to improve the productivity and quality of hospital services in Romania:

"This opportunity arises from the already identified opportunities for PPP in the Bucharest region. These have been assessed and documented in previous work for the MoH by the International Finance Corporation and should be implemented. The experience from these initiatives will be of immense value making decisions to extend PPPs more widely across Romania."

The PPP financing model is very attractive: it is a private contract, signed between a specific private company (Special Project Vehicle - SPV) and a local government or a hospital (with financial autonomy). It allows this public institution to entrust, to this SPV, a global assignment to finance, design, construct, maintain and manage the works of public facilities and services, contributing to the missions of public utility, for a long term period, and in return of a annual rent paid by the Public Body.

The official objective is to optimise the respective performances of both public and private sectors, in order to achieve, as soon as possible, the projects presenting public utility, without using public and State funding. But, on the contrary, the cost for the hospital (annual rent) could be very high.

Therefore this PPP financial model is very attractive. It is a very convenient way, for public bodies, to develop huge investment programs, without any impact on public investment funding.

[31] Final report – Book 2 – Planning and regulation of the healthcare delivery system. § 1.8. Pages 10 and 11.

That is true and we notice, in Western countries, a general and continuous trend in favour of PPP projects. The consultant considers that the PPP financial model could be an interesting way of financing hospital infrastructures, under the condition that the public body in charge of the negotiation of the contract with the SPV will be aware of the financial, management and legal risks.

The Public Body in charge of the contract should gather legal, financial and technical skills, in order to deal with the best law firms, banking groups and civil works companies in Europe. For this reason, they should be assisted by private advisors with the same level of expertise.

The PPP scheme could be preferred to a conventional contract, if it allows reducing the period of the public procurement procedure, and also the period of construction, that means to be operational faster. But the 'factor payment' (annual rent to the SPV) of the private contracting party will be the determining element, because the amount of the rent is susceptible to financially penalise the hospital, during a very long period of time (from 25 to 30 years), without any real possibility of cancellation of this contractual commitment.

In England and Canada, countries with a real experience of PPPs, various studies showed that these additional running costs can represent an increase of 10% to 30% compared to a conventional contract[32]. If it is true that PPP contracts could be more expensive than conventional contracts, a comprehensive and equitable comparison should take into account the quality of raw materials and technical installations used in the construction, and the real savings made on a long period, thanks to the facility management included in the contract.

In conclusion, the public-private partnerships constitute an interesting contractual model for different types of contractual projects. For a total reconstruction or for setting up a new hospital, the PPP could substantially increase the cost of hospital building, and it is necessary to be very prudent and watchful, in the follow-up of the procedure (comparator and competitive dialogue). Indeed, the stakes are high and the financial consequences of PPP contracts, which are not well negotiated (amount of the rent and length of the contract) could be harmful for the future of the hospital.

[32] Carvel, J. (2006), NHS Told: put money before medicine. Hewitt vows end to handout culture. The Guardian. January 23.

Recommendation:
Public- Private Partnership

Public-private partnership should be stimulated but with special care for the follow-up of the procedure (comparator and competitive dialogue) because the financial consequences of PPP contracts, which are not well negotiated (amount of the rent and length of the contract) could be harmful for the future of the hospital.

3.3. Hospital strategic plan, business plan and impact of investment on operational costs

As mentioned in the previous paragraph, if it is relatively easy to invest in hospitals, the key issue is the impact of these investments on hospital operational cost. Indeed, various studies show that the global investment cost of a 500 acute care hospital, including technical installations and medical equipment, represents about three years of its operational cost. That means that the number and the cost of human resources will depend directly on the architectural conception of the inpatient wards and of the distribution of clinical services.

For this reason, before launching the construction of a hospital, it is important to prepare a strategic plan presenting the objectives of this hospital, the foreseen activity and both human and financial resources needed. Afterwards, concerning for example, the maintenance of the medical equipment, it represents between 8% and 12% of the acquisition cost per year. This amount should be included in the future functioning budget of the hospital.

On a financial point of view, the strategic plan of the hospital should be followed up by a business plan presenting on a medium term period (five years) the future operational budget of the hospital, per year, précising the evolution of activity, human resources, support services, etc.

This business plan should be presented under the responsibility of the hospital decision makers, as an official document allowing the acceptance of the project by the MoH or the Regional Healthcare Authority.

3.4. Healthcare decentralisation

The decentralisation process in the Romanian healthcare sector changes the role of the central ministry staff from line management to policy formulation and program monitoring. It reduces also the financing role of MoH and decreases the ownership status (ordinance 70/2002). In counterpart, the role of the central authority (MoH) is increased

in the field of regulation and healthcare policy (standards of quality, national contests for physicians, drugs policy)[33].

The GVG final report[34] proposes to establish new governing bodies at the county level, responsible for all the delivery of all health services that are provided within the county: *"the county health network should be autonomous in the management and operation of all health services"*.

The national strategy regarding the health services[35] outlines in its objective 6 *"a fast implementation of the health system reform and the consequent decentralisation of the operational and financial management"*.

The Health Reform Law N°95 (April 14, 2006) mentions in article 12 that *"the county and Bucharest Public Health Authorities are deconcentrated public services of the Ministry of Public Health, having legal personality and observing the public health authority at local level"*.

Finally, the council of the Ministry of Health, dated December 18, 2006, made the following decision: drawing up a memorandum on decentralisation and reorganisation of the health system, including the measures of reorganisation of the health system at the county level.

3.4.1. The appropriate level of healthcare decentralisation: the region

After analysing these different official documents and propositions, the consultant considers that the strategic orientation of healthcare decentralisation at county level is not the appropriate level of organisation to be set up in the healthcare field. The 'Judet' in Romania, like the 'County' in England and the 'Département' in France are too small geographical scales, at both levels of number of population and size of the area concerned.

For these reasons, both France and England have decided to change their healthcare management organisation, by setting up a 'Strategic Health Authority' at the regional level in England and the 'Agence Régionale d'Hospitalisation' at the regional level in France.

That means that it is possible to set up, in the healthcare field, a specific regional deconcentration system[36], independently of the decentralisation system applied at both political and public administration levels.

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[33] Radelescu, S., World Bank. Presentation in Belgrade. May 10, 2005. Decentralization – Recent experience in the Romanian health sector.
[34] GVG Final Report – Book 2 – Planning and Regulation of the Healthcare Delivery System.
[35] Government Decision N°1088/2004
[36] Deconcentration means to transfer responsibility to a lower administrative level, in opposition to devolution which implies transferring authority to a lower political level. It is possible to combine both systems, devolution at a political level and deconcentration at an administrative level.

The consultant recommends, in the healthcare field, the establishment of a new deconcentrated governing body at the regional level. This Regional Health Authority should be responsible for the programming, financing, management and delivery of all healthcare services provided within the region.

This recommendation is argued by the six following reasons:

1. The region is the most convenient and appropriate geo-demographic area to plan, program and manage a whole organisation of healthcare services. Indeed, the region, thanks to its dimension, can contain the quasi-totality of medical and surgical specialisation, with the exception of some high-tech specialities organised at the inter-regional or central level (burn unit, transplant surgery).

2. The region, in Romania, allows having a global and whole vision of the healthcare organisation, due to an average population of 2.6 million inhabitants per region.

3. On the scale of the region, a Healthcare Authority can organise an equitable distribution of medical services and healthcare facilities as well as financial and human resources. On the contrary, the county is too small to propose a healthcare organisation with accessibility and equity criteria.

4. In terms of healthcare planning and programming, the region is the appropriate geo-demographic area to prepare, to negotiate, to adopt and to evaluate the Regional Healthcare Map. It is not possible to set up such a map at the county level.

5. With the official proposition of decentralisation at the county level, in establishing a County Health Authority as an autonomous legal body, it would be very difficult to organise an efficient collaboration and complementarity in order to coordinate healthcare delivery and financing between the different counties. The decentralisation at the county level risks creating a subdivision between the counties with the difficulty to run any project associating different counties.

6. Regarding the difficulties to appoint administrative executives with high level healthcare economic skills and competences, and the financial cost to set up more than 40 County Healthcare Authorities, it would be better to create a strong, competent and powerful Healthcare Administration at the regional level.

Each region is generally made up of six counties. If the decentralisation process is politically organised at the county level, that would permit to this Regional Healthcare Authority, deconcentrated (and not devoluted) to be more autonomous, and less dependant towards the local political stakeholders.

Recommendation:
Regional Healthcare Authority

The appropriate level of healthcare decentralisation is the Region. Indeed, the Region is the most convenient geo-demographic area to plan, program and manage a whole organisation of healthcare services.

In order to manage the eight Euro Regions in Romania, MoH should set up eight Regional Healthcare Authorities, responsible for the management, financing, programming and control of the delivery of all healthcare services provided within the Region.

This regional healthcare deconcentration system could be set up independently of the decentralisation system applied at both political and public administration levels.

3.4.2. The management tools to serve a good regional governance

This Regional Healthcare Authority, autonomous legal body, should be assisted by a consultative council made up of representatives of healthcare facilities (counties, hospitals, primary healthcare) and of political and community stakeholders.

The key management tool at the regional level will be the Regional Healthcare Map, which fulfil the roles of a regional strategic plan for healthcare organisation and of an official programming reference document. That means that the construction of a new hospital, the distribution of high-tech medical equipment, transferring a medical activity from one facility to another and the planning of human resources, will be part of this document, prepared by the Regional Healthcare Authority (RHA) and adopted by the consultative council.

Concerning specifically medical equipment, a special medical equipment planning document should be prepared and the programming, procurement and management of medical equipment will be carried out by the RHA, and not at the central level.

Finally, at the hospital level, a medium term strategic plan, including a business plan, should be prepared and voted by each hospital, for every five year period. This hospital strategic plan, which constitutes a pre-requisite for any investment project, should be adopted and validated by the RHA.

Recommendation:
Healthcare equity

In order to reduce both geographical and socio-economic disparities, MoH should implement new planning and management tools within the framework of healthcare geography, to tend towards a uniformity of healthcare services available in all the counties, contributing to equity and accessibility for the whole Romanian population.

3.5. Corporate governance and management development

Regarding healthcare reform and hospital management, the World Bank is used to present three types of organisational changes: autonomisation, corporatisation and privatisation. The three types of reforms involve reducing direct government control over the public hospitals and exposing them more to the market or to quasi-market[37].

The situation in Romania is different. We are not at the stage of reducing government implication over the public hospitals. At present, considering the huge difficulties of the Romanian Healthcare System, the level of hospital debts and the difficulty to reduce corruption, the context is not in favour of decreasing the role of the State.

Even if the State continues to play a major role in hospital governance, the hospital reform foresees the introduction of new public management tools like internal contract between clinical departments and the hospital, clinical governance, and new hospital governance experiments.

Recommendation:
Hospital management and corporate governance

The hospital reform should foresee the introduction of a management culture for all the key actors of the hospital, and new public management tools like corporatisation and hospital governance experiments (management of a public hospital by a private entity, corporate governance and public-private consortium).

[37] Preker, A., Harding, A., *Innovations in Health Service Delivery: The Corporatization of Public Hospitals.* The World Bank. 2003.

3.5.1. Clinical governance

Clinical governance is the system through which hospitals and other healthcare organisations are accountable for continuously improving the quality and security of their services and safeguarding high standards of care by creating an environment in which clinical excellence will flourish[38].

Clinical governance is at present a new branch of healthcare management, focused on clinical activities. The objective is to set up management rules and management tools in order to improve the organisation and the functioning of clinical services.

In the Law N°95, clinical governance is not officially announced as a key issue of clinical departments' management, but the art. 184 for example, foresees a completely new relationship between the heads of departments and the manager of the hospital, through an administration contract, where the specific performance indicators of each clinical department are established.

The implementation of this contract is a good opportunity to set up clinical governance methods to improve the quality of their services, with a purpose of clinical excellence.

3.5.2. Hospital governance experiments

The Law N°95 foresees also different possibilities of governance experiments, like the management of a public hospital by a private entity, thanks to the legal person mentioned in the art. 178.

Other experiments are possible, even if they are not specified in the Law. The new public management[39] is another way to experiment corporate governance and private management adapted to public services. In the healthcare field, new public management is used for cost containment, quality improvement and public support.

The consultant would like to propose to the MoH another hospital governance experiment, which is inspired of the Italian healthcare system, using both public and private facilities to manage 'Public Utility Hospitals' . In Italy, a public hospital or a hospital with public utility can be managed as a corporate, and financed by public incomes, through a public-private consortium, financed 51% public and 49% private, publicly owned and privately managed.

In our opinion, this way of managing hospitals could offer an excellent transition between what the World Bank calls 'autonomisation' and 'corporatisation'. According to this Italian model, this experimental public hospital will be managed as a private company by

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[38] Definition of Clinical Governance by the British Department of Health.

[39] Osborne, S.P., Ferlie, E., Mac Laughlin, K., *New Public Management – Current trends and future prospects.* Politics/Current Events. 2002

a private entity, but will be owned by the public administration and will respond to the healthcare needs of the population in a public utility manner.

3.6. Education and management skills for professional and ethical management

3.6.1 Creation of a special course and degree for hospital management

If hospitals are looked at as enterprises, they are frequently not the smallest. The bigger hospitals in Romania have a multi million RON budget and employ several thousands of staff members. The management of these hospitals is not an easy task and should be undertaken in a professional way.
Hospitals are also particular because their purpose is to serve the health of the population which is undoubtedly the most valuable 'good' existing. The management of hospitals is therefore of extreme importance and should be taken very seriously. An ethical perspective should be added to the management and the focus should not be on the economic aspects alone.
Furthermore, the hospitals in Romania are financed by public funds and this adds a further dimension of obligation of transparency to the management.

The Romanian government made considerable efforts to professionalize the management of hospitals because this professional, transparent and ethical approach was sometimes lacking in the past.

Hospital managers are since 2006 contracted by public competition and need to have followed specific management courses. A contract is signed for 3 years and every year their performance is assessed.

Because of the urgent need to restructure the hospital manager positions, a 'crash course' was organised by the National School of Public Health and Health Management which was obligatory for all the candidates for the vacancies. In total this course consisted of only 16 days, a limited time in which only basic, theoretical topics could be taught.

To offer a better preparation for hospital managers, the same National School of Public Health is developing a formal 1-year course in collaboration with other European public health and management schools. The content of the course is not yet known but it will definitely reach a high level for professional and transparent management. The ethical components are much harder to integrate but they should also get sufficient attention.

3.6.2 Quality Assurance and Improvement

Quality is primordial in health care. Even in times of rationalisation, quality of care should always be preserved and even improved. ‘Deviations’ or ‘failures’ that are acceptable in other industries (even in very small amounts like the Six Sigma approach) get a grim aspect in health care because the health and even the life of a human being are at stake. Therefore, no upper limit should be decided[40] but a continuous strive to improve the health outcomes should be the concern of all the stakeholders in the health care system. Hence quality assurance is a first step but the ultimate goal is a process of continuous quality improvement.

Quality in health care has moreover different dimensions in function of whose perspective: professionals focus on the individual patient, for the government a more general approach of public health and cost-efficiency are the main preoccupations, the patients value a human approach and a fast solution to their problem.
This creates problems for formulating a complete definition of quality of care and for deciding about a set of indicators which can measure all the different aspect of health care quality. It also offers different options about who should organise the quality assurance and improvement of health care.

There are currently various different strategies in use to improve quality and patient safety in hospitals: standards and guidelines, quality assessment and accreditation, total quality management (TQM) and continuous quality improvement (CQI), re-engineering, benchmarking, risk management, etc.

Yet a publication from WHO’s Health Evidence Network[41] says that *“There is no conclusive evidence of effectiveness for any of the strategies”*. This does not imply that none of them improves quality but merely that for the moment it has not (yet) been proven in a scientifically sound way which is the best approach.

In view of the multitude of the different approaches and the substantial financial inputs needed to implement them, it proves difficult to identify one type of strategy as better than another. The conclusion of the same publication is that *“... the available research suggests that a strategy is more likely to be successful if it is chosen with knowledge of alternative approaches, adapted to the situation, reviewed and adjusted to changes and pursued consistently by committed management. It is possible that a policy and financial context that rewards greater safety and quality is important, as is active and transparent management of the balance of quantity, cost and quality of service.”*

[40] Of course this doesn’t mean that all patients can be saved but it should be interpreted in line with the Institute of Medicine’s definition of quality in health care as ‘*The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge’.*
[41] Ovretveit J., What are the best strategies for ensuring quality in hospitals? WHO Europe, Health Evidence Network, November 2003

4 THE PERSPECTIVES EXPECTED BY THE LAW N°95, APRIL 14, 2006

The Romanian healthcare system in general, and the hospital sector in particular, are characterised by both managerial and financial crisis, as an effect of many unsolved governance problems which accumulated during the last fifteen years.

The healthcare budget represents, in Romania, 4 billion US$ in 2005, with a huge increase during the last ten years (this budget is five times higher than in 1998).

Nevertheless, in the past five years, debts mushroomed to hundreds of millions of dollars. The lack of management and the lack of financial resources in some hospitals obliged patients to bring their own medical supplies.

In many hospitals, patients have to pay bribes to doctors, and nurses are also on the bribe list. A World Bank report points out that Romanian patients are used to pay 360 million US$, per year, in bribes to medical staff[42].

To change the system and to improve both managerial and financial issues, the different solutions proposed by the Romanian Government are decentralisation, rehabilitation of the hospital network based on regional services, increase autonomy of hospitals, stimulate efficiency and tackle corruption. To achieve these different goals, the new healthcare reform package, and first of all the Law N°95 of April 14, 2006, have the ambition of saving money and giving patients better access to treatment.

"The whole philosophy of these healthcare laws is that the system will start working in the favour of the patient."[43].

This is the key issue of the new healthcare reform: do we have a real 'patient centred view' in the 2006 legislative health package? This question is crucial because the most controversial orientation of the new legislation is the introduction of a basic package of healthcare, which entitles to some medical treatments, and not, as before, to all the treatments and medical prescriptions free of charge. Treatments and prescriptions beyond the minimum package of healthcare have to be paid out-of-pocket.

It is important to analyse the Healthcare Law N°95, in its Title VII concerning hospitals, to determine if this new legislation will permit to improve managerial and financial issues, in order to bring a solution to the huge problems presented above and to set up a modernised, efficient and equitable hospital system.

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[42] World Bank Report, Romania Healthcare, 2005

[43] Declaration of the Minister of Health, cited in the Lancet, Vol. 367, April 22, 2006. p. 1 307

The following legal items will be reviewed: the organisational structure of the hospital, the different legal status, the hospital status (public, private), the certification and accreditation procedures and the different consultative and decision making bodies involved in public hospital governance.

4.1. The organisational structure of the hospital

4.1.1. The different classifications of hospitals

The articles 171 and 172 of Chapter 2 (organisation and operation of hospitals) present a lot of categories, responding to various criteria, with sometimes contradictions. Art. 172-e defines the ‘general hospital’ as an institution having at least two basic specialities, in opposition to the specialised hospital (art. 172-f), providing medical assistance to a single speciality.

The emergency hospital (art. 172-d) is, in fact, a general hospital having a comprehensive structure of specialities, with of course an emergency department, including pre-hospital and mobile intensive care unit.

Actually, the different categories presented in the art. 172 can entail confusions and contradictions, especially between general, emergency and county hospitals. Without questioning this multiple classification already officially included in the Law, it would be important, for the secondary legislation, to insist and to specify the territorial classification, which presents the main pillars of hospital organisation at the territorial level.

Secondary legislation proposed

The territorial criterion permits both to simplify the hospital classification and to merge with other criteria:

The regional hospital is also general hospital (art. 172-e), emergency hospital (175-d) and most of the time a clinical hospital (172-h).

The county hospital should also be an emergency hospital, with an emergency structure and MICU, a general hospital and could be a clinical hospital.

The local hospital (art. 172-c) is a general hospital providing medical assistance, depending on the medical and material resources available. Indeed, with the lack of medical resources, a major trend is to give the priority, first of all, to the county hospital, for the different specialised medical and surgical departments, and afterwards, in relation to the hospital needs of the population and to the financial and human resources available, to maintain some specialised medical assistance in these local hospitals.

Concerning the specialised hospitals, the consultant proposes to transform these institutions in clinical departments, after reducing the number of beds, and to transfer these clinical departments within the county or the regional hospital.

Finally, both sanatorium and preventorium should be scheduled to be closed down in a mid-term period (five years), after setting up clinical departments in pneumo-phtisiology, and transfer to county or regional hospitals.

The secondary legislation should be accurate on the definition and the content of local, county and regional hospital.

The consultant considers that the ordinance on the classification criteria regarding local, county and regional emergency hospitals, based on the competences, material and human resources, represents an appropriate classification, but too focused on emergency medical assistance. Indeed, the emergency criteria are not appropriate to classify hospitals and, in the European Union, these hospitals with emergency departments and MICU are called general hospitals, that is to say hospitals having all the medical and surgical specialities, including of course emergency department and MICU.

Recommendation:
Hospital classification

The territorial classification of hospitals (regional, county, local) should become the predominant one, because it implies a functional and hierarchical hospital organisation, and permits to simplify the hospital classification and to merge with other criteria.

4.1.2. The balance between inpatient and outpatient services

The art. 173-1 presents the organisational structure of the hospital, with clinical departments, laboratories, services and offices, and other pre-hospital assistance services and MICU.

The art. 173-2 points out the importance of specialised outpatient services, day hospitalisation and home attendance.

Secondary legislation proposed

It is important to focus the organisational structure of the future new hospitals (emergency regional) on day hospitalisation, ambulatory surgery and outpatient services. The bed is not an appropriate criterion anymore to define the hospital. The provision of care in a hospital should be based on the 'episode of care', and not on patient stay, that is to say, not on hospitalisation-accommodation, but oriented on outpatient diagnosis and treatment.

Romania is a hospital centrism country. From a financial point of view, the setting up of day hospitalisation and ambulatory surgery requires adequate financial incentives, and first of all, a specific attractive DRG fee for day care and ambulatory activities.

4.2. Hospital Status: public and private

4.2.1. The public hospital

According to the new 2006 healthcare reform, a public hospital is a hospital in which, only the new basic package of healthcare is free of charge. For the rest of treatment and medical prescriptions, every patient will have to pay an out-of-pocket fee. This financial reform is a key opportunity to change the rules in public hospitals, to reduce and to abolish the bribes, thanks to an official out-of-pocket payment.

Secondary legislation proposed

It is important to define precisely the legal status of the public hospital, public body: building ownership, administrative and legal autonomy, financial autonomy, staffing status, procurement procedure, signature of the contracts.

Two other key issues should be considered with attention: the first one concerns the appointment conditions and responsibility of the hospital manager. In counterpart of his administrative and financial autonomy, he should be responsible and accountable to the Regional Healthcare Authority, for the global management of the hospital and especially for financial issues. In compensation of this both legal and financial responsibility, the General Manager of the public hospital should be appointed with an attractive contract and financial incentives, following the example of judges and prosecutors.

4.2.2. Private hospitals

The art. 165-2 presents the different categories of hospitals, according to the legal status: *"the hospital may be public, public with private departments or private"*.

Funding for private departments of public hospitals and for private hospitals is provided in counterpart of a private payment, out-of-pocket or private insurance.

If private hospitals are managed under private law and commercial rules, a specific issue concerns administrative and financial relationships between private departments and the direction of the public hospital. Indeed, as it occurs in various European countries (England and France for example), both administrative and financial rules defining the organisation and the management of every private activity inside the public hospital, should be detailed accurately, in order to avoid any risk of financial and ethical drift. All the rules concerning management and functioning should be very precise and accurate because it is always difficult supervising private practice in public entities.

Secondary legislation proposed

Every private activity, inside a public hospital, should be conditioned in an official agreement with the following items:

- *Inpatient*
  - *Number of private beds*
  - *Activity allowed : number of bed-days, number of admissions,*
  - *Physician private working time allowed*

- *Outpatient*
  - *Working hours per week allowed for private practice,*
  - *Number of private consultations allowed,*
  - *Distribution of working hours between private and public activity*

- *Management and financial rules :*
  - *All the financial transfers and movements concerning private practice should be managed under the responsibility of the public hospital administration: private out of pocket payments are made through the hospital cash desk. The financial department of the hospital is in charge of the transfer of money to the professionals.*
  - *After admission, it is forbidden to transfer a public patient to the private department of the hospital.*
  - In every case, a public inpatient care provision should be available, to assure

Recommendation:
Hospital Status

A precise definition is needed regarding the legal status of the public hospital, public body: building ownership, administrative and legal autonomy, financial autonomy, staffing status, procurement procedure, signature of contracts.

Every private activity, inside the public hospital, should be conditioned in an official agreement, within an accurate framework (activity allowed, working hours, management and financial rules). In every case, a public inpatient care provision should be available, in terms of accessibility and equity.

4.3. Hospital certification and accreditation

The art. 175 presents the 'sanitary operating licence', based on the norms and standards approved by MoH. This licence gives the hospital the right to operate. A second step of authorisation concerns a mid-term certification procedure (five years). A certified hospital is recognised to operate at the standards established, certifying the quality of the healthcare services provided.

The certification standards are established by the National Commission of Hospital Certification, a public body operating under the coordination of the Prime Minister, financed from proper income (hospital certification fee) and State budget.

The art. 176 foresees that certification procedures, standards and methodology will be elaborated by the NCHC, and approved by Order of the MoH.

Secondary legislation proposed

1. The Board: NCHC

In addition to the Board of the NCHC which includes representatives of Presidency, Government, Academy, College of Physicians, Order of Registered Nurses, a Scientific Committee of the NCHC should be implemented, in order to guarantee the scientific and ethical independence of the certification procedure, with regards to the official approval of the NCHC by a Government decision at the proposal of the MoH, and with regards to the Order of the MoH approving certification procedures, standards and methodology.

To guarantee this independence, the whole procedure of hospital accreditation should be under the responsibility of the scientific committee of the NCHC.

2. Referential Manual and ISO standards

Before launching the certification process for hospitals, the Scientific Committee should prepare the specification manual for hospital quality and security measures. These specifications must be designed as a reference guide for hospitals. To launch this reference manual, the Romanian healthcare professionals can lean on various European and North American experiments (Joint Commission in USA and Canada, Haute Autorité de Santé in France), and on different reference manuals (Manual Brasileiro de Accreditação Hospitalar, a balance between North-American and European rules).

3. Procedure

As mentioned in art. 175-1, the certification procedure can not exceed a period of five years. Before launching this program with norms and standards defined, the specification manual should be ready, and an ordinance should be published to announce the launching of the global procedure. Before that, the teams of visitors-experts, made up of hospital physicians, head nurses and hospital managers, should be appointed and trained. Both recruitment and training courses represent at least 12 to 18 months to be operational.

4. Expected outcomes

The expected outcomes should be prepared and scheduled, step by step.

Step 1: during the first five years of the certification program, the objective is to achieve a first level certification of all Romanian hospitals, based on clinical departments and services accreditation.

Step 2: For the second mid-term period, the certification process will move from the accreditation of clinical and non-clinical departments to the accreditation and the evaluation of professional practices, including medical practices.

Step 3: After this second mid-term period, the certification target will be oriented to the individual evaluation of physicians, head nurses and managers.

4.4. The different bodies involved in public hospital governance

In Romania, according to the new 2006 healthcare reform, in public hospitals, the power belongs, first of all, to the general manager, natural person, and not to the Board which is only a consultative council.

The manager could be also a legal person, in case of a contract allowing a private company to manage a public hospital. Different organs and committees are also involved in hospital governance (Local Council, NHIH and County Health Authority).

4.4.1. The Board, a consultative council

The art.186 foresees a Consultative Council, *"with the role to debate the main problems of strategy, organisation and operation of the hospital and to make recommendations to the hospital managers"*. The members of this council are representatives of MoH, County or Local Council, University and Trade-Unions (with a special status of permanent guest).

Secondary Legislation proposed

If the composition of the consultative council is clear, the competencies are defined very vaguely: "with the role to debate the main problems of strategy, organisation and operation of the hospital and to make recommendations to the hospital managers as a result of the debates".

On one hand, the least that we can say is that the role and competencies of the council are not clear, and it would be quite impossible, in a secondary legislation, to propose a real power of decision to this council, if that was the objective followed.

On the other hand, it will be very difficult, for the hospital manager, to manage such a consultative council: Indeed, if this council has no direct legal power of decision, it has a very strong power of influence, because of the high political and administrative positions of the members of this consultative council.

The consultant considers that it would be better to have a powerful Board of Directors, accountable for its decisions, including financial decisions, with the responsibility to assume financially the deficit of the hospital.

4.4.2. The manager, natural person and the managing committee

In the Chapter 3 of the Law N°95 (management of hospitals), the art. 178-2 outlines the managerial skills and competencies of the hospital manager who should be graduated from a higher Education Institution. The manager signs a 'management contract' with the MoH, for a three years period, with the possibility to be over before the term, as a result of the evaluation of this manager, based on performance indicators.

Financial issues, control and execution of the budget are the key indicators of the yearly evaluation of the manager.

The art. 179 foresees the condition of recruitment of the manager, by a commission appointed by the MoH.

Secondary legislation proposed

Recruitment and educational background

The secondary legislation should foresee, in an accurate way, the educational background allowing the candidates to apply for a hospital manager function.

If the hospital manager function is now opened to all graduates of a higher Education Institution, and not only to medical doctors, all the candidates must prove their competencies in general management, including financial skills, information technology systems, strategic planning and decision making.

Management contract

The negotiation of the contract should be done between the manager and the Regional Health Authority, by devolution of MoH, in order to improve the efficiency and to limit the political influence of local elected members at the county level.

The contract should traduce the regional healthcare policy and both objectives and targets to be achieved.

Concerning the performance indicators mentioned in the contract, and used for the evaluation of the manager, financial criteria and execution of the budget are not the only indicators to be considered. The key role of the manager is the governance of the hospital, that is to say, in the Romanian healthcare context, the ability to launch 'change management', huge reforms, new modalities of medical assistance, restructuring issues, etc.

4.4.3. Corporate governance rules and the Romanian healthcare reform (Law N°95)

It is interesting to compare the Law N°95, concerning the management of the Romanian public hospital with the corporatisation of public hospitals, a key orientation for the future of hospitals, promoted by the World Bank[44].

The World Bank proposes a new model of governance for public hospitals, transforming the hospital administrations, dominated by a traditional administrative bureaucracy, in para-statal corporations, subjected to a quasi-market environment.

This definition of 'corporatisation' intervenes in a more global process, aiming at transforming progressively hospital governance, through three successive steps:

[44] Preker, A. , Harding, A., *Innovations in Health Service Delivery. The Corporatization of Public Hospitals*, the World Bank, 2003.

- Step 1: increasing management autonomy of public hospitals, in comparison with other public administrations
- Step 2: corporatisation (applying the corporate governance rules)
- Step 3: progressive and comprehensive transfer of the healthcare institution from the public sector to a private management.

The analysis of the Romanian system shows that the hospital governance rules are still at step 1 with an increase of the management autonomy of public hospital. Indeed, recruitment rules and competencies of the consultative council and of the hospital manager are not in conformity with the corporate governance rules, according to the World Bank standards, as it appears in Table 18:

Table 18: World Bank corporate management rules, in comparison with the Romanian Hospital Reform[45] (Law N°95)

Corporate governance rules applied to the public hospital	Romanian Reform Yes/ No
Legal statutes (public hospital is a public body)	Yes
Financial and administrative autonomy	Yes
Financial responsibility (risk of bankruptcy)	No
The public hospital can keep its financial profit	Yes
Public hospitals should pay its deficit	Yes
The public hospital is subjected to real competition	No
Hospital incomes are based on its activity	Yes
With a specific remuneration for public interest activities	Yes
Public ownership but corporate governance management	No
The board has huge responsibilities, in terms of hospital management and control	No
The manager is appointed and controlled by the board	No
Application of private labour law	No
Application of private governance rules	No
Hospital management decision makers (manager and board) are powerful and autonomous, and independent from the political power	No

[45] Mordelet, P., Gouvernance de l'hôpital et crise des systèmes de santé. Editions ENSP. 2006

4.4.4. The manager, legal person

The art. 178-1 foresees that "*the public hospital is managed by a manager, natural or legal person*". The art. 179-4 outlines that "*the selection of the manager legal person is made by public auction, according to the dispositions of the Law of public acquisitions*".

Secondary legislation proposed

Besides the application of the dispositions of the Law of Public Acquisitions, the management of public hospitals by a legal person (when this legal person is a private entity) should take into account specific rules concerning the hospital ownership, the public funding, the private service and the public control.

Public funding

> *When a public hospital is managed by a private entity, the contract between this private entity and the public body should specify the conditions of the public funding, and the criteria applied. Usually, the criterion is a payment per capita. This amount serves to pay all the hospital expenditures of the population registered. It is also possible to combine the two payment systems, DRG and per capita.*

Public control

> *The public body in charge of the management of the contract is also in charge of the control of the legal person. This control includes quality and security of care, user satisfaction and follow-up of activity data.*

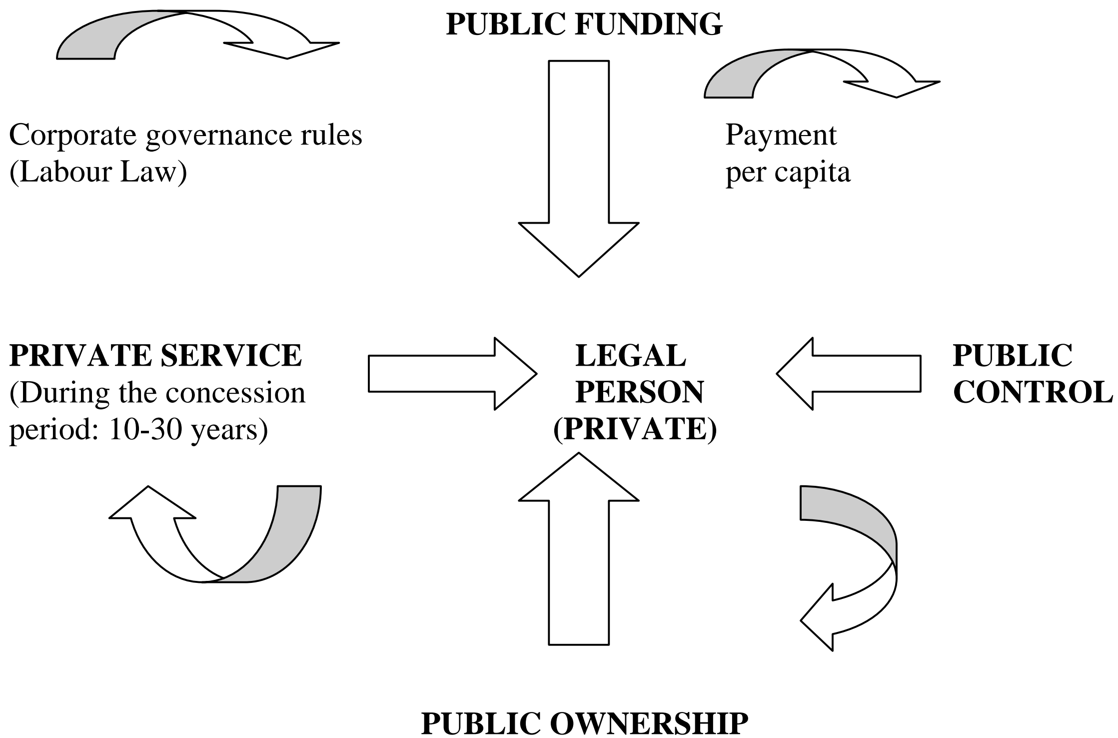
Public ownership

> *The legal person, holder of the contract, is a private entity, but the hospital is a public hospital. If the contract follows the PPP procedure, the hospital is built by the legal person but will be the ownership of the public entity at the end of the contract.*

Private service

> *The legal person, a private company, is in charge of all the management of the hospital. Corporate governance rules are applied in this 'public hospital' and the public body couldn't intervene in any way in the management of the hospital.*

Figure 11: Public Hospital Administrative Concession



4.4.5. Public hospital financial rules

art. 188 points out that the public hospitals operate according to the principle of financial autonomy. This financial autonomy means that the organisation of the hospital activity is based on its own income and expenditure budget.

Hospitals have the obligation to ensure the achievement of income and to justify the expenses referring to the actions and objectives of the budgetary year, in titles, articles and paragraphs, according to the budgetary classification.

The art. 191 describes the procedure of preparation and execution of the budget, according to the methodological norms approved by Order of MoH.

In case of debts at the date of the conclusion of the management contract, the art. 192 specifies that these debts will be outlined separately.

Secondary legislation proposed

Regarding the accurate rules to set up in order to define the content and the level of the hospital financial autonomy, a precise secondary legislation should be drawn up concerning the following items:

- *analysis of the financial structure,*
- *accounting balance sheet,*
- *cash flow and working capital,*
- *need of financing*

It is important to set up a completely new financial legislation, from the financial diagnosis, to the financial dashboard, which should be a synthetic tool of financial analysis, with the evolution of the financial outcomes, net margin and debts.