PROSPECTS FOR THE ESTABLISHMENT OF AN INTEGRATED HEALTHCARE AND SOCIAL CARE SYSTEM

Doctoral (Ph.D.) thesis

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1. INTRODUCTION

The Hungarian social care system involving financial, in kind and personal care services was established by implementing the act of 1993 on social administration and social services. However, social facilities operating in the framework of personal care had already been available for those in need before the implementation of the law. The development of residential senior care homes started right after the Second World War, as a result of which poorhouses were converted into residential social institutions after a while. These facilities were 'one-design' institutions and those in need were admitted due to disability, illness, advanced age or poor social conditions. The specialization of retirement homes was carried out in 1954 according to the instructions of the National Social Policy Council. In the '60s, new care services were also established which allowed patients to stay at their homes. The first elderly day care centre was opened in Budapest in 1958. Home care was implemented by the Ministry of Health on experimental basis in three cities in 1966 and the tasks were performed by professional home care providers. By nowadays the care system has become differentiated with the simultaneous involvement of institutional and home care, primary and special nursing services as well as the system of temporary and permanent care services. Care services have been specialized to specific target groups (the elderly, the disabled, psychiatric patients, addicts and the homeless).

Since the change of regime almost all democratically elected governments have intended to extend the social network for the most fragile and poorest layers of society; however, no real breakthrough has been achieved in this respect yet. The present form of the social care system regulated by the social law established in 1993 has limited capacity for solving social problems and conflicts. Certain care services are poorly targeted and equal opportunities are not granted in the accessibility to the various services. The explosive changes affecting the population, the amount of information and life span put a continually rising burden on the operability of the care system. The number of people over the age of 60 increases more rapidly in the society than that of the other age groups. This number is likely to rise from the 200 million registered in 1950 to one billion and two millions by 2025, which would be an almost six-fold rise within 75 years. In Europe, two important trends can be observed in the ageing of the

population. Since 1970, the average life expectancy at birth has risen by 5.5 years in women and by nearly 5 years in men. This change may also represent that the number of expected life years spent in „good health" without disability is rising thus increasing the rate of the elderly in the population. Compared to the 16.1% registered in 2000 this trend may indicate that by 2050 27.5% of the population will be over the age of 65. In 2000, the rate of people over the age of 80 was 3.6% in the society and this number may reach 10% by 2050. The presented demographic processes pose severe challenges to the social security, healthcare and social care systems of European countries. As a result of changing family roles, more and more emphasis has been put on „professional" nursing in elderly care. This type of care is provided by qualified nurses according to strict professional protocols, whether we are talking about institutional or home care.

In Hungary, „professional" care organized for the elderly within the system of basic services includes social catering, home help, home help with alarm system and day care for the elderly (elderly clubs). Specialized care forms include temporary nursing homes and residential senior care homes providing permanent nursing care. Elderly care is also present in the healthcare system. In primary care it is provided in the form of general practitioner services and home special nursing while within inpatient care, elderly care is provided by chronic care services. The presented demographic changes call for an integrated approach towards the transformation of care systems in the short run. This is the only way that the limited financial and human resources can meet the more and more demanding requirements that care services have to face. The exploration of the financial aspects of elderly care is hampered by the relatively low number of publications. Modelling is further complicated by the different conceptual systems of the two care systems and their different data registration methods. It is important to propose a novel, integrated model for elderly care based on an intersectoral approach of the available statistical and financial data. In my thesis I would like to give a detailed analysis and description of the Hungarian situation of home special nursing, chronic care (code 7305), home help and facilities providing permanent care and nursing for the elderly.

2. OBJECTIVES

The topic of my thesis is the description of Hungarian elderly nursing care services. Based on the analysis of the available databases, my aim is to evaluate the services organized for the elderly which can be found both in the healthcare and social care systems. I intend to give a detailed description of the legislative framework, capacity and funding mechanisms of these services.

I would like to summarize the main objectives of my research as the followings:

1. I would like to define the health insurance expenses of nursing services organized by the healthcare system based on the data of the National Health Insurance Fund Administration.
2. I intend to describe the publicly funded social services based on the data provided by the National Office for Rehabilitation and Social Affairs and the Hungarian State Treasury.
3. As a part of my research, I would like to explore the availability and utilization indicators of nursing homes organized by the healthcare system and elderly care homes operating in the framework of social care.
4. I intend to raise the attention of health policy makers to the parallel services in the two care systems using the results of my thesis.
5. I would like to recommend the implementation of a uniformly regulated and financed nursing care system.

3. MATERIALS AND METHODS

3.1. The aim of our study is to give a detailed analysis of home special nursing. Healthcare services provided by home special nursing can be divided into two main categories: special nursing services and specialized therapeutic services. Special nursing services can further be divided into three categories based on different care needs: patients requiring complete or partial care and self-supporting patients. The data used for analysis were provided by the financial database of the National Health Insurance Fund Administration and derive from the period between 2001 and 2012.

3.2. In our thesis we give a detailed description of home care as a form of basic social services. Home help is a form of care which allows patients to remain self-supporting in their homes and neighbourhood in accordance with their personal needs. The capacity data of home help in 2012 were provided for us by the National Office for Rehabilitation and Social Affairs. The data of state subsidies spent on the funding of the social services of home help in 2012 were provided for us by the Hungarian State Treasury. The data source of institutions financed by County Institution Maintenance Centres was the Ministry of Public Administration and Justice.

3.3. Our study is aimed at exploring the system of facilities that provide nursing and care for the elderly within the social care system. Elderly nursing homes provide permanent care for those in need. In temporary care facilities, temporary care can be requested for one year at the most, which can be extended with another year once. Institutional data concerning elderly care were provided for us by the Information Systems of the Social Sector (SZÁIR, TEIR) and the Hungarian Central Statistical Office.

3.4. The aim of our study is to analyse the financing, utilization and patient data of special nursing (code 7305) operating within the chronic care system. Data were provided for us by the National Institute of Quality and Organizational Development in Healthcare and Medicines. We give a detailed description of residential social institutions licensed for special nursing. These data were provided by the National Office of the Chief Medical Officer.

3.5. This chapter presents the financing and utilization data of the whole vertical structure of the social care system. The described capacity data were provided by the National Office for Rehabilitation and Social Affairs, financial data were provided by the Hungarian State Treasury. Utilization data reflects the situation between 21st and 15th October, 2012. Financial data derive from the year 2011. Furthermore, we intend to list the social care and healthcare services that may serve as a basis for the establishment of a novel, integrated care system.

4. RESULTS

4.1. The average number of home care service providers financed by the National Health Insurance Fund Administration was 325 in the examined 12 year-long period and did not show significant changes. The number of patients provided with care rose from 36,560 in 2001 to 51,647 in 2012, which meant a rise by 41.3%. The number of visits increased from 841,715 to 1,194,670, by 41.9% in the same period.

Significant regional changes could be observed between the utilization indices. The average number of patients per 10,000 inhabitants was 52.1/10,000 in the country. The highest numbers were observed in the counties of Zala (67.7), Baranya (65.5) and Győr-Moson-Sopron (61.3), while the lowest ones were found in the counties of Hajdú-Bihar (45.0), Somogy (44.6) and Szabolcs-Szatmár-Bereg (32.6). The average number of patient visits per 10,000 inhabitants was 1,204/10,000 in the country. The highest numbers were observed in the counties of Nógrád (1,702), Tolna (1,411) and Győr-Moson-Sopron (1,357), while the lowest ones were found in the county of Hajdú-Bihar (1,130), in Budapest (1,110) and in the county of Szabolcs-Szatmár-Bereg (761) (Figure 1).

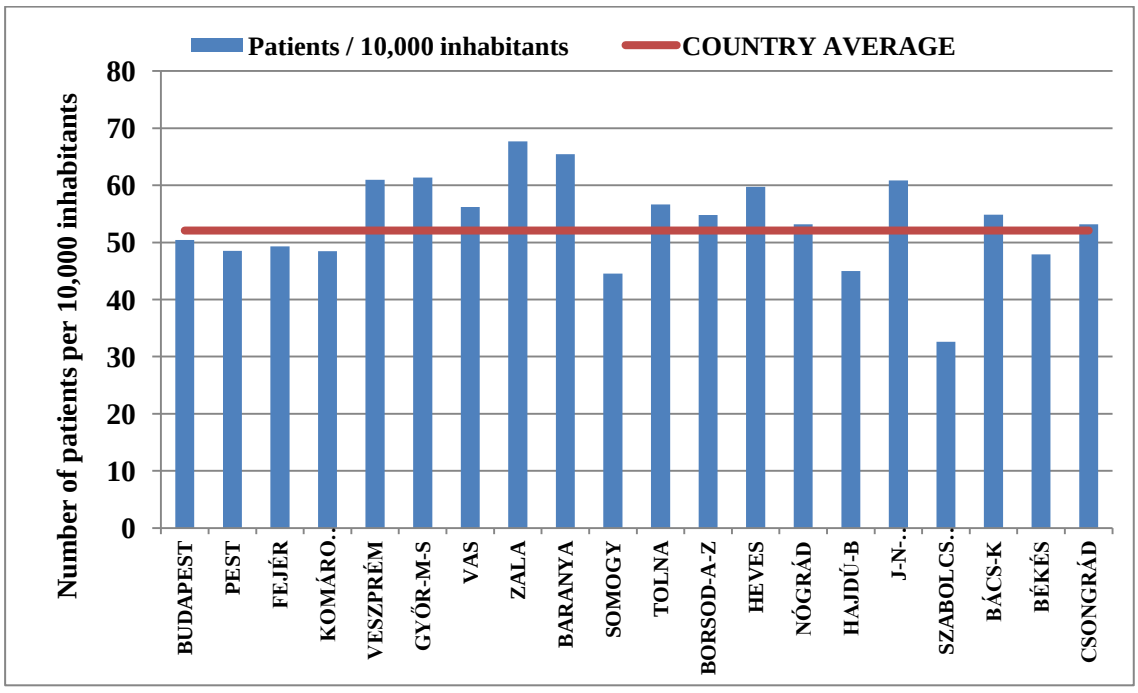

Figure 1

The number of home special nursing patients per 10,000 inhabitants by counties (2012)

4.2. Altogether 26.63 billion HUF was granted by the central budget for home help in 2012. State and local governmental institutions received 33.8% of this amount and 66.2% was provided for non-governmental, that is, church and civil organizations. Broken down by counties the highest resources were provided for the county of Szabolcs-Szatmár-Bereg with more than 5.4 billion HUF and then come Budapest with 4.75 billion HUF and the county of Békés with 4.51 billion HUF. The lowest nominal state resources for home help were provided for the county of Komárom-Esztergom, scarcely 111.45 billion HUF.

In 2012, the average amount of state subsidy was 2,682 HUF per one inhabitant in the country. This number was 464.5% of the country average in the county of Békés, where the amount of state subsidy was 12,457 HUF per one inhabitant. In the county of Szabolcs-Szatmár-Bereg this number was 358.2% of the country average with 9,605 HUF per one inhabitant, while in the county of Hajdú-Bihar this number was 214.1% of the country average with a state subsidy of 5,742 HUF per one inhabitant. The lowest amounts per one inhabitant were observed in the counties of Komárom-Esztergom with 367 HUF and Pest with 329 HUF (Figure 2).

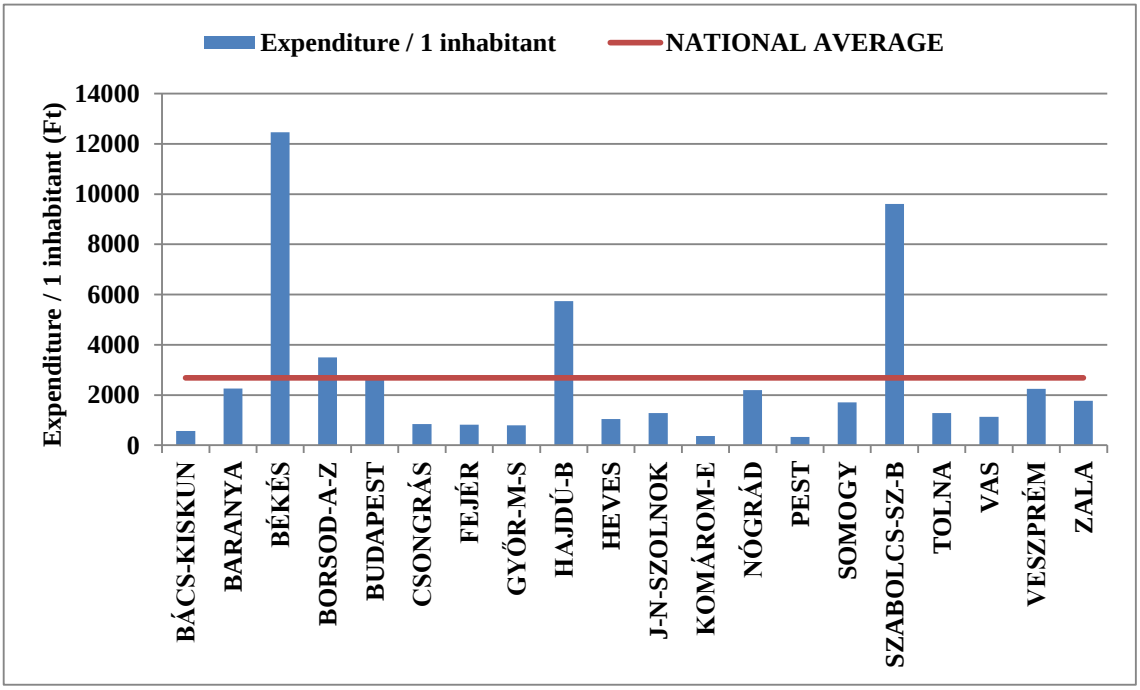

Figure 2
The annual home help expenditure of the central budget by counties (2012) based on the data of the Hungarian State Treasury

4.3. The analysis of the availability data of nursing homes has revealed that the number of available beds increased by 28.56% from 42,658 in 2001 to 54,840 in 2012. Between 2001 and 2005 the number of beds showed an almost 3% rise every year, then in 2006 it rose by more than 5% compared to the previous year. After 2007, the number of new beds rose by further 1% every year. The rate of increase fell below 1% since 2009.

Recipient numbers per 1,000 inhabitants aged 60 years or older were also examined. In 2001, statistically 20.01 elderly patients were taken care of in permanent or temporary elderly care facilities per 1,000 inhabitants aged 60 or older. This number showed a gradual increase until 2005, then in 2006 it sharply increased to 23.19 patients due to the increased number of beds. In 2007 it continued to increase up to 23.45 patients and then in 2008 it decreased to 22.71 people. Since then, minimal fluctuation can be observed in the annual rate of recipients every year (Figure 3).

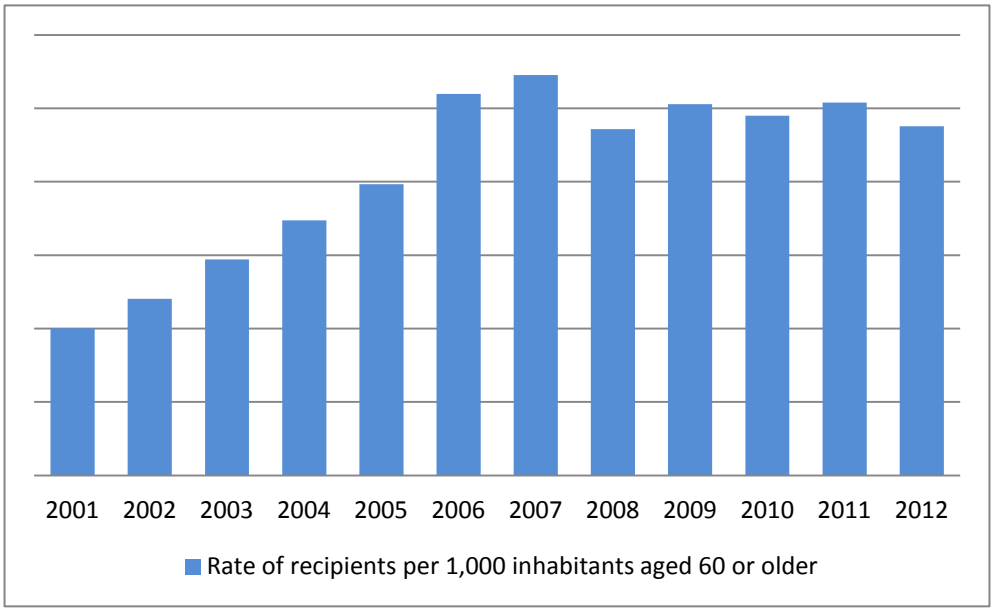

Figure 3

Rate of recipients per 1,000 inhabitants aged 60 or more in the respective year (facilities providing permanent elderly nursing care or temporary elderly care)

4.4. In 2012, the average number of beds available for code 7305 special nursing was 2,403 in Hungary. Altogether 7,018 patients and 7,952 cases were registered on these hospital beds with a national bed occupancy rate of 87.6%. The service providers spent 4,263.4 million HUF state subsidies on nursing beds. The average number of available beds was the highest in Budapest (358) and in the counties of Békés (330) and Komárom-Esztergom (257). The lowest numbers were observed in the counties of Vas (54), Szabolcs-Szatmár-Bereg (48) and Heves (20). In certain institutions of Fejér, Nógrád and Szabolcs-Szatmár-Bereg counties the number of hospital beds, the number of bed days available, bed occupancy rates and the obligation to provide in-area care were not registered in the database; however, the number of patients, the number of cases, the number of inpatient days and financing were indicated among the data., There weren't any special nursing hospital beds available in Bács-Kiskun county in the examined period. The highest numbers of patients were registered in Borsod-Abaúj-Zemplén county (1,094), in Budapest (915) and in Békés county (500), while the lowest numbers were observed in the counties of Pest (183), Nógrád (79) and Heves (73) (Table 1).

As for the case numbers per 10,000 inhabitants, the highest numbers were registered in the counties of Tolna (20.1) Borsod-Abaúj-Zemplén (17) and Békés (15.6). The three lowest numbers in this respect derived from Nógrád (4), Heves (2.7) and Pest (1.9) counties. The bed occupancy rate varied between 72.5% and 97.1%. The three counties lacking registered numbers of beds were not included in the analysis because they would have biased the index. Based on financing data, the highest amounts of state subsidy were provided for the institutions of Borsod-Abaúj-Zemplén county (573), Budapest (562.6) and Komárom-Esztergom county. The hospitals of Vas (79.6), Nógrád (65.6) and Heves (39.2) counties were provided with the lowest resources.

Among the 10 most commonly diagnosed ICDs of the patients on special nursing beds (code: 7305), I70.9 (generalized and unspecified atherosclerosis) was diagnosed in 36% and I10 (essential (primary) hypertension) in 26% of the cases. Among the TOP 10 ICDs, the least frequently diagnosed conditions were R15 (faecal incontinence), F03 (unspecified dementia) and G93.4 (encephalopathy, unspecified) with 3% (Figure 4).

County	Average number of beds	Number of beds per 10,000 inhabitants	Number of patients	Number of cases	Number of cases per 10,000 inhabitants	Bed occupancy rate (%)	Financing (million HUF)
Baranya	110	2.9	409	464	12.2	90.2	201.5
Békés	90	2.5	500	566	15.6	87.5	156.5
Borsod-A-Z	330	4.8	1.094	1,170	17.0	85.9	573.0
Budapest	358	2.1	915	1,006	5.8	77.8	562.6
Csongrád	55	1.3	284	307	7.5	78.4	84.1
Fejér	148	3.5	446	522	12.4	99.9	299.7
Győr-M-S	136	3.1	338	347	7.8	94.1	260.8
Hajdú-Bihar	116	2.1	212	316	5.8	96.9	229.1
Heves	20	0.6	73	84	2.7	99.3	39.2
J-N-Szolnok	155	4.0	414	489	12.5	93.6	293.6
Komárom-E	257	8.5	251	300	9.9	79.3	417.1
Nógrád*	27	1.3	79	82	4.0	119.9	65.6
Pest	123	1.0	183	236	1.9	92.6	233.2
Somogy	113	3.5	197	206	6.5	72.9	167.4
Szabolcs-Sz-B	48	0.8	315	331	5.9	122.1	117.7
Tolna	79	3.4	422	466	20.1	86.4	136.1
Vas	54	2.1	194	198	7.7	72.5	79.6
Veszprém	120	3.4	426	525	14.8	97.1	237.4
Zala	64	2.3	266	337	11.9	84.1	109.2
Total	**2,403**	**2.4**	**7,018**	**7,952**	**8.0**	**87.6**	**4,263.4**

Table 1

Special nursing in Hungarian healthcare facilities (2012)

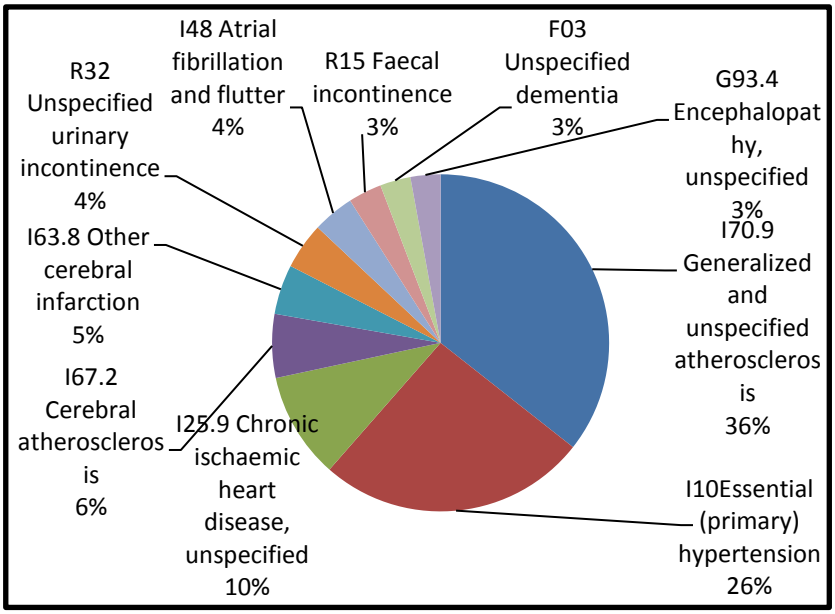

Figure 4

The 10 most commonly diagnosed ICD case numbers on special nursing beds (2012) (2012)

4.5. During the examined period, basic social services were available in 6,217 facilities. The budget provided an annual amount of 48.9 billion HUF for their operation. Specialized social services were provided in 1,748 institutions using 67.6 billion HUF normative supports annually. We have listed the elements of social and healthcare services that would be worth being integrated into one service in the future because it would reduce the number of parallel services. We believe that such a clear care system could be operated more economically, on a higher professional level (Figure 5).

Elements of an integrated social care and healthcare system	
Social care services ⟷	**Healthcare services**
Village caretaker and farm caretaker services	**Patient transport**
Transportation services of the support service	Patient transport
Home help	**Home care**
Home help with alarm system	On-call services
Family counselling and care	**Health visitor services**
Day care	Hospital day care
Facilities providing nursing and care	**Chronic inpatient care**
Facilities providing temporary care	Chronic inpatient care
Facilities for rehabilitation	**Inpatient rehabilitation facilities**

Figure 5

Elements of an integrated social care and healthcare system in Hungary

5. DISCUSSION, SUMMARY

In the previous chapters we gave a detailed description of the capacity and financing data of social care services. For the sake of an integrated approach towards elderly care we also devoted different chapters for the description of home special nursing within basic healthcare services and the different nursing services under code 7305 within the framework of specialized care services.

Based on the available financial data from 2012 we present an integrated data system of the nursing services that were previously discussed separately. The presented data of home help and facilities providing permanent elderly nursing and care (hereinafter nursing homes) were provided for us by the National Office for Rehabilitation and Social Affairs and the Hungarian State Treasury, while data concerning home special nursing under code 7305 derive from the information system of the National Health Insurance Fund Administration. In 2012 the central budget spent 73,485.9 million HUF on nursing services in the framework of elderly care. The highest resources were provided for nursing homes (39,212.7 million HUF). Service providers used 26,632.8 million HUF subsidy for home help, 4,263.4 HUF for nursing services under code 7305 and 3,377 million HUF for home special nursing (Figure 6).

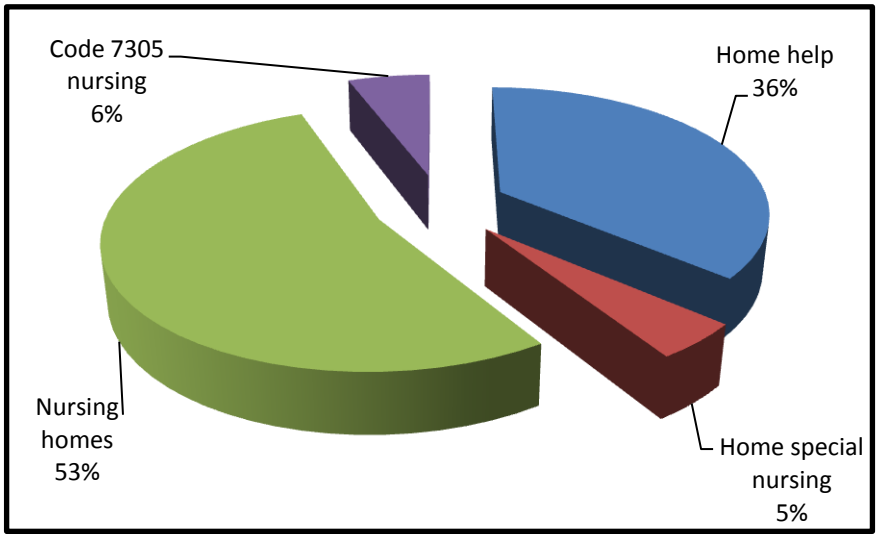

Figure 6

Financing of elderly nursing care services in 2012

In 2012, 30,010 million HUF were available for the operation of home special nursing and home help organized by the primary care system. The highest resources were provided for the county of Szabolcs-Szatmár-Bereg (5,553), Budapest (5,269.6) and the county of Békés (4,643.5). The lowest numbers were observed in the counties of Tolna (389.3), Vas (384.4) and Komárom-Esztergom (217.1).

In 2012 the services operating within institutional framework were provided with a budgetary support of 43,474 million HUF (Figure 7). Data analysis by counties has revealed that Budapest highly stands out of the other counties with 10,806 million HUF. The county of Pest is the second (3,244) and the county of Szabolcs-Szatmár-Bereg is the third on the list (2,915). The lowest amounts were provided for the counties of Zala (818), Vas (655) and Nógrád (464).

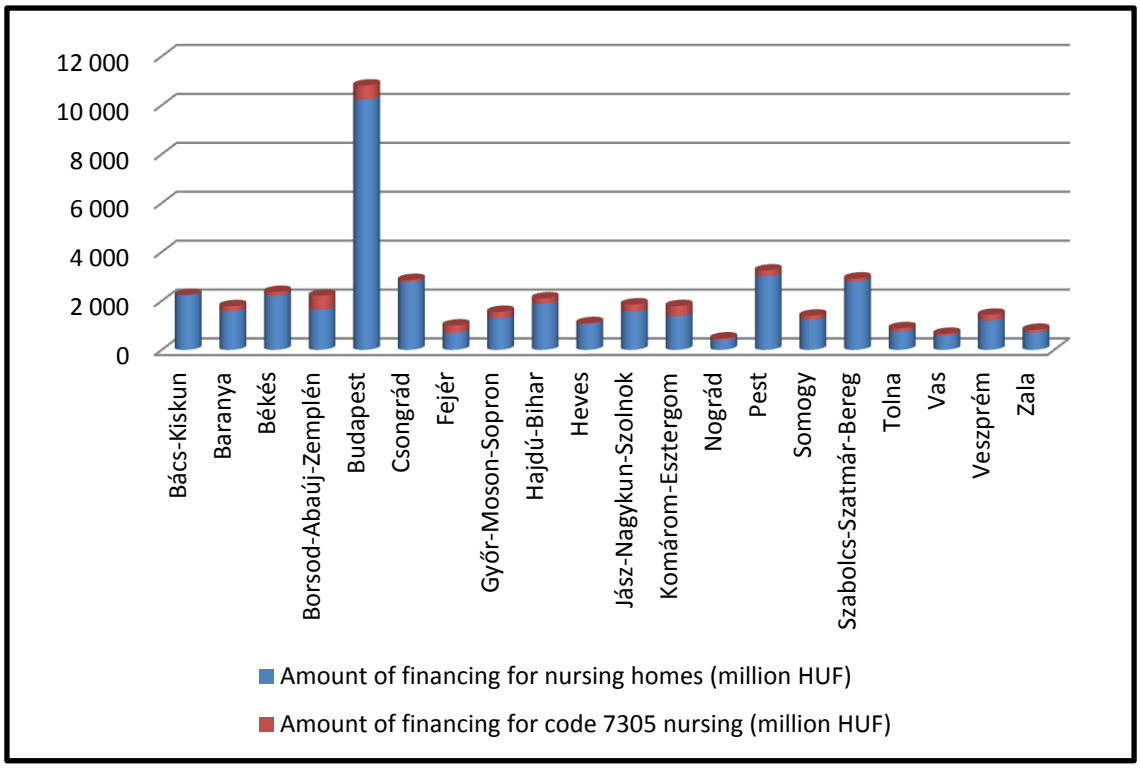

Figure 7

Budgetary resource spent on institutional nursing by counties in 2012

The amendment of decree 2/2004 (XI.17) issued by the Ministry of Health represented considerable progress in the establishment of an integrated system of nursing services as it defined the legislative framework for special nursing at nursing homes and child protection institutions. As a result, 16.1% of social care facilities requested and received a license for special nursing activities. The almost one and a half years elapsed since the regulation have revealed the gaps in the legislation. In spite of the positive changes, human resources, capacity regulation and financing remain to be differentiated in the care systems.

We have to state that a professional approach towards the single elements of the care system has failed to eliminate parallel services. The regulations should be reconsidered conceptually within the complete service system of the two care systems. As a result of recent demographic changes the care system is no longer sustainable in its present form without considerably increasing financial resources. The solution is the establishment and implementation of an integrated nursing system, which may manifest in the form of a nursing law. The uniquely processed and analysed data in the thesis may serve as a good basis for the preparation of health policy decisions.

6. NOVEL FINDINGS, PRACTICAL APPLICATIONS

The analyses presented in the thesis contain numerous novel findings and possibilities for practical applications, which are summarized as the followings:

Novel findings

1. I defined the health insurance expenses of publicly financed nursing services provided for the elderly by the National Health Insurance Fund Administration.
2. I described the public expenses of social services financed by different organizations.
3. I explored the utilization data of nursing services financed by the National Health Insurance Fund Administration.
4. I summarized the utilization data of social services financed by different organizations.
5. I gave a detailed analysis of the special nursing activities that can be performed at nursery homes since 2012.
6. I presented the integrated nursing services organized for the elderly by counties.
7. I defined the social care services that would be worth being integrated into a uniformly organized care system.

Practical applications:

1. I carried out capacity and financing analyses in order to create an integrated elderly nursing care system and thus established the basis for a novel nursing law that would regulate elderly nursing care services.

2. I recommend the implementation of an integrated capacity, financing and data service system to help reduce the differences revealed by the analysis.

3. Before the implementation of a nursing law I find it important to prepare the participants of the sector.

4. It is crucially important to implement a professional training system for social sector employees with a reconsidered human resource training system (retraining programmes, license exams).

5. In the EU budgetary period from 2014 to 2020– as a priority of the Human-Resources Development Operational Programme (HDOP) in the auspices of the „inclusive society" concept - I recommend the specification of the integrated development of nursing care infrastructure and human resources.