

Changes in capacity and utilization of general practitioner care in Northern Hungary since the EU accession

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Abstract: Primary care is an indispensable element of the healthcare system: it creates a link between the patient and the healthcare system, plays an important role in the establishment of the diagnosis and healthcare focusing on prevention, thus decreasing the burden of higher levels of progressive care and costs. The new alternatives of organisational solutions, the horizontal and vertical forms of cooperation of general practitioners' clusters and group practices allow a more efficient organisation of healthcare. The changes that took place in the structure of the economy after the change of the political system were mostly disadvantageous for the socio-economic situation of Northern Hungary. The different components characterizing the marginal situation of the region are widely described in specialized literature, but there are only few scientific articles dealing with the health situation of the region. The present study is based on a previous own research showing that the capacities of the healthcare system of the region are lagging far behind the situation in other parts of the country.

Keywords: health, healthcare, primary care, general practitioner, Northern Hungary

Introduction

The importance of health care has increased in the past decades: nearly 50% of the increase in life expectancy is due to the extension and improvement of healthcare (Figueras et al., 2008). The way of life chosen plays also an important role, but at the same time access to care and the way of life are influenced by social factors (Chan, 2008). Consequently it is vital to understand the relation between society and the economy and health status coupled with the level of health care. At micro-level, the improvement of health status affects positively economic productivity, workforce offer, propensity to save, as well as learning and creative abilities (Orosz, 2001).

At macro-level, these positive changes result in the improvement of the economy in general, and if the incomes generated are used to consume healthy products and services, develop the public health system, enrich knowledge and maintain democratic principles and institutions, these factors contribute to a better general health status meaning that in this case we are facing a positive feedback (Kollányi, 2013).

The place of GP care in the Hungarian healthcare system

According to the Health Care Act, the health care system is built on an institutional system which is based on the distribution of work and the principle of progressive care, serving the differentiated care of individuals with diverse health status, in which the required level of care is determined by all the joint parameters of the patient's health status.

The principle of progressive care prevails on every level of healthcare. (CLIV/1997. §75/3) In accordance with the Act CXXIII of 2015 on primary care, patients are entitled to receive in the framework of primary health care long-term, continuous medical treatment based on personal relationship in or near their place of residence, based on the patient's choice, regardless of age, gender and the nature of the disease.

The main areas of primary care defined by law are the following:

- general practitioner (GP), paediatrician
- district nurse care
- school health care
- home nursing and home hospice care related to primary care
- occupational healthcare

Territorial healthcare is the obligation of the maintaining institution or the owner of healthcare services, or the healthcare providers, to provide health services for persons who are eligible for healthcare financed by compulsory health insurance, in areas of care determined in specialized healthcare, using contracted capacities. (CXXXII/2006. § 1/1/n) Regarding the mandatory health care tasks, the Act on Local Governments stipulates that municipal governments have to provide primary health care, while specialized healthcare exceeding primary care has to be provided by county and capital governments. (CLXXXIX/2011. § 13/4)

According to paragraph 8 (1) of the Act on primary healthcare, “*the general practitioner provides personal and continuous care aimed at the preservation of health, prevention, early diagnosis and treatment of diseases, as well as the promotion of health.*” Pursuant to paragraph 8(2), the family paediatrician provides the care defined in paragraph 8(1) for persons under the age of 19. Paediatric care can also be provided – upon choice – by the general practitioner for persons aged 14-19. The GP is authorized by law to manage health data and performs other medical expert activities which are not financed by social insurance, i.e. releasing medical report, medical opinion for driving license, firearm ownership, etc. According to the law – in addition to territorial limitations – the free choice of GP is the fundamental right of every citizen. (4/2000. EüM regulation)

Motives leading to the selection of the study area

In my former research I carried out the territorial comparative analysis of particular elements of the healthcare system in the 19 NUTS 3 counties plus the capital of Hungary using the method of cluster analysis. I applied twenty indicators describing the personal, infrastructural and accessibility characteristics of the health services, representing the individual segments of care. The source of indicators was the Regional Healthcare Database (REA) inside the Online Hungarian Healthcare Database (IMEA) of the National Healthcare Service Center (ÁEEK). Based on the assumption that all segments of health care – represented by the variables – were equally important, and that the supply of certain services in a given area nowhere exceeded the optimum value: I considered the higher values of the indicators as ideal. The counties of Northern Hungary, Borsod-Abaúj-Zemplén (hereinafter referred to as Borsod), Heves, Nógrád were included into the first cluster (together with Somogy and Zala counties). For each variable, the Northern Hungarian counties of the first cluster were ranked at the last or penultimate place, comparing their average values with the elements of the other clusters (Bálint, 2016).

Changes in the capacities and utilization of the GP and paediatrician care in Northern Hungary

According to the data of the Hungarian Central Statistical Office, in 2015 the number of adult and child care GPs together was 732 in Northern Hungary, out of which 423 persons

practiced in Borsod county, 188 in Heves county and 121 in Nógrád county. In Borsod, between 2005 and 2014, a continuous decrease of 8.4% occurred, and the value of the indicator measured for 2014 stagnated in 2015. In Heves county, the decrease of 7.6% in the period from 2008 to 2013 was followed by a slight increase of 3.3% by 2015. Between 2004 and 2015, an overall decrease of 9% could be observed, accompanied by fluctuations. For the years 2004-2015, the average number of inhabitants per general practitioner was 1555 in Borsod, 1635 in Heves and 1621 in Nógrád, so – based on this specific indicator – the workload of general practitioners was the highest in Heves county, however, later I will refine this finding by analysing statistical data on consultations and visits.

In the Regional Healthcare Database of the National Healthcare Service Center, the latest data on general practitioners providing adult, paediatric and mixed care are available for the year 2014. In the three counties examined, the absolute number of all the three categories of family care shows a slight decline, basically stagnation since the year of accession to the EU. The tendency is just the opposite for the values projected to the population (due to the continuous decrease of the population observed in all three counties, especially in the 0-14 and 15-64 age groups). The increase in the number of adult general practitioner services per 100 thousand inhabitants aged 20 or older is hardly perceptible, while an average of 5.7% growth in the number of paediatrician services per 100 thousand inhabitants aged 19 or younger was more spectacular between 2004 and 2014. For both indicators, Borsod county produced the highest values, followed respectively by Nógrád county, and Heves county. The number of general practitioner services per 100 thousand inhabitants providing mixed care has been slowly growing (near stagnating) since 2008. Nógrád county, which had produced the best values until 2007, lowered over the years to the level of Heves county, while Borsod county is lagging behind in the specific number of mixed GP services for the entire time series. Within the general practitioner services, the proportion of practices accepting to deliver territorial care in the area showed an average of 98.2% for the period 2004-2014.

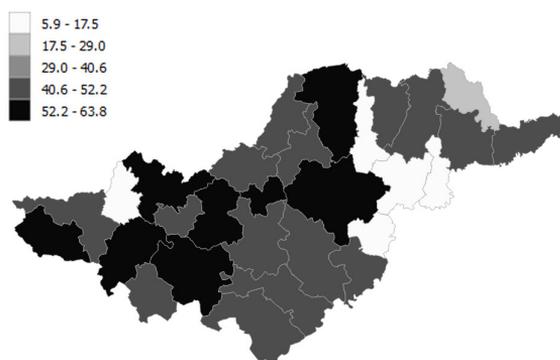


Figure 1. Number of general practitioners per 100 000 inhabitants in the LAU1 districts of the Northern Hungarian Region
 Source: own edition based on HCSO (2016)

According to the stipulations of the government decree 313/2011. (XII. 23.), a general practitioner's district having the obligation to provide healthcare in the area is considered as a permanently vacant district if the services are provided by replacement for a period exceeding six months, except if this is due to work impediment of the GP in charge of the

district, or if – with the exception of replacement – local government is not able to provide health care for a period of six months at least with a person entitled to perform medical activity. Table 1 contains the most important information concerning permanently vacant general practitioner's services by district. We can see that most of these districts belong to the category of mixed services, especially in Borsod-Abaúj-Zemplén county where the length of the vacancy is also the highest.

Table 1. Number of permanently vacant general practitioner's services by district categories in the Northern Hungarian counties

	Adult physician	Paediatrician	Mixed	Average length of vacancy (years)
Borsod-Abaúj-Zemplén	5	3	33	5.71
Heves	3	1	9	3.38
Nógrád	3	4	7	4.71

Source: own edition based on ÁNTSZ (2017)

At present, in 38.2% of the 68 vacant primary care districts (26 districts) adult, paediatric or mixed GPs have been missing for 1 or 2 years, and in 39.6% of the vacant areas the period of the vacancy exceeds 5 years. In areas with the longest vacancy – according the data of 1 January 2017 – general practitioners have been missing for 12 years in one or the other type of care, these areas (9 in total) represent 13.2% of the vacant districts in the Northern Hungarian region. The high number of persistently vacant districts raises the problem of work replacement. In my opinion, in the deficit areas the workload of general practitioners covering larger and larger districts should not rise above a certain level, since it reduces in every district the time and resources that can be spent on each patient. The analysis of statistical data on consultation and visits can give a picture of the utilization and burdens of the general practitioner capacities, though, the data in the REA are only available until 2012.

The change in the number of patients who attended consultations or were visited by the general practitioner can be divided into four phases in the period between 2004 and 2012. Between 2004-2006 this indicator increased by around 6% in all counties of Northern Hungary, while from 2006 to 2007, a sudden decrease occurred: 22.3% in Borsod, 18% in Heves and 19.4% in Nógrád. Between 2007 and 2009 the growth was 11.8% in Borsod, 8.8% in Heves and 9.82% in Nógrád. The period between 2009 and 2012 was characterized by a minimal decline, practically stagnation. The decline, which can generally be observed in 2007 in the utilization of GP care was the consequence of the introduction from 15 February 2007 of the so-called 'visiting fee' (contribution or co-payment to be paid uniformly by the patients above health insurance for each consultation in the framework of GP care, dental and out-patient specialized care), while the increase in the subsequent period was the result of the referendum of 9 March 2008 (which obliged the Parliament to restore the previous full scope insurance by 1 January 2009).

Concerning the number of patients attending paediatric care, the infinitesimal growth of the 2004-2006 period in Borsod was followed by a decrease of 8.2% between 2006 and 2008. After the temporary upturn of 4.1% in 2008-2009, the decline continued until 2012 by 11.5%. In Heves, the value of the indicator increased almost exactly to the same extent

(by 3.3%) as it decreased in the previous period between 2004-2008, but the major change happened between 2009 and 2012 with a decrease of 13.6%. Very similar processes took place in Nógrád: the studied indicator decreased by 3.5% between 2004 and 2006, rose by 3.9% from 2006 to 2009, then lowered by 13.6% in the period 2009-2012.

In addition to the absolute indicators, the utilization of the GP services can be further described with the help of specific indicators. For the complete time series, the number of patients attending GP care and patients visited per 1000 inhabitants is the highest in Heves (7004.4 persons on average in the 2004-2012 period), it is slightly lower in Borsod and Nógrád (on average 6482.7 and 6273.9 persons). The periodic tendencies of growth and decline are all along the same in all three counties, and the impact of visiting fee appears of course in the 2007 values of the indicator projected to the population number (and the effect of the referendum for the 2008-2009 values appears as well).

The number of children attending consultation or being visited in the framework of paediatric care is the highest in Borsod for the whole time series (on average 4795.9 for the period), while Heves and Nógrád 'rotate' their position every 2-3 years with smaller or larger fluctuations (with an average of 4503.9 and 4532.4 persons). Since patients under the age of 18 were not concerned by the introduction of the visiting fee, its effect did not prevail at all in the specific number of consultations and visits in Nógrád, and only to a lesser extent in Heves, however in Borsod, the decrease took place similarly to the adult GP care. In Borsod county the sensitivity of the parents towards visiting fee appeared in relation to paediatric consultations as well.

Between 2004 and 2012, the average number of GP consultations or patients visited per general practitioner – similarly to the values projected on the number of inhabitants – was the highest in Heves (14337.7), 12985.5 in Borsod and 12712 in Nógrád. The indicator shows a relatively strong fluctuation and can be divided into three distinctive phases. After the increase of the 2004-2006 period (Borsod: 7.4%; Heves: 6.9%; Nógrád: 8.9%), the strong decrease from 2006 to 2007 (Borsod: 21.7%; Heves: 17.3%; Nógrád: 16.7%) was followed by a similarly noticeable growth between 2007 and 2012 (Borsod: 23.1%; Heves: 14.6%; Nógrád: 13.5%). In all three counties, the last phase can be divided into two parts: the 2007-2009 period is characterized by a sharp increase (around 20% in Borsod and Nógrád, 11.3% in Heves), while in the 2009-2012 period a moderate growth can be registered in Borsod (2.4%) and Heves (2.9%), and a drop of 5.5% in Nógrád.

In the period examined the average number of paediatric consultations and patients visited per paediatrician was the highest in Nógrád with 8425.4 persons, while this periodic average was 8161.9 in Heves, 8050 in Borsod. The value of the indicator showed a very strong volatility during the period between 2004 and 2012. Compared to the year 2006 – which was the peak – a decrease of 7.2 and 18 percent could be registered respectively in Borsod and Heves counties by 2012. After the outstanding values of the year 2009, there was a 13.6% drop in Nógrád until 2012.

Conclusions

Similar processes have taken place in the counties of the region in the period following EU accession. The number of general practitioners' services has decreased in general in adult and child care, but has increased in relation to the number of inhabitants due to

population decline. The number of permanently vacant general practitioner's districts has risen dramatically in the past two years, and in many places the vacancy covers more than a decade. The introduction of visiting fee in the middle of the 2000s caused a temporary decrease in the use of primary care, which nevertheless returned to the same level after the suppression of the fee. In the past years the highest workload in general practitioners' care of adult patients was experienced in Heves county, child care attendance was the highest in Nógrád county, but due to ageing the number of visits per paediatrician decreased everywhere.

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