The Hungarian Care Managing Organization Pilot Program

Imre Boncz, MD, MSc, PhD1,*, Tamás Evetovits, MD, MSc5, Csaba Dózsa, MSc, Andor Sebestyén, MD, MBA, PhD3, László Gulácsi, MD, MSc, PhD3, István Ágoston, JD, PhD1, Dóra Endrei, MD, MSc, PhD1, Timea Csákvári, MSc5, Thomas E. Getzen, MSc, PhD6

1Faculty of Health Sciences, Institute for Health Insurance, University of Pécs, Pécs, Hungary; 2WHO Barcelona Office for Health Systems Strengthening, Division of Health Systems and Public Health, WHO Regional Office for Europe, Barcelona, Spain; 3Health Care Faculty, University of Miskolc, Miskolc, Hungary; 4South-Transdanubian Regional Office, National Health Insurance Fund Administration, Pécs, Hungary; 5Department of Health Economics, Corvinus University of Budapest, Budapest, Hungary; 6Risk, Insurance, and Healthcare Management Department, Temple University, Philadelphia, PA, USA

A B S T R A C T

Objectives: The aim of this article was to provide a description of the Hungarian care managing organization (CMO) pilot program and its environment, incentive structure, and preliminary outcomes. The need to change the behavior of doctors to increase the effectiveness and cost-effectiveness of the system was the key rationale for the Hungarian CMO pilot program. Methods: After an application process, nine CMOs were entitled to enter into the system in July 1999. By 2006, there were 14 CMOs covering 2.1 million people. The Hungarian CMO program tried to combine the advantages of both the US managed care programs and the UK general practitioner fundholding system, within the constraints and opportunities of a Central-European country committed to a single-payer health insurance system. Results: The revenue of CMOs derived from a risk-adjusted capitation. The capitation formula was weighted only by age and sex. The expenditures of the CMOs included all the health expenditures on their patients that occurred in any part of the health care system. The average savings rate for all CMOs for the fiscal years 1999 to 2007 was 4.94%. The highest rates of savings were realized in chronic and acute inpatient care and medical devices. The pilot was discontinued in 2008 without a comprehensive evaluation of the experience. Conclusions: We can conclude that this pilot had a significant contribution to the modernization of the Hungarian health care system.

Keywords: care managing, health care reform, health insurance, Hungary, managed care, risk selection.

Copyright © 2015, International Society for Pharmacoeconomics and Outcomes Research (ISPOR). Published by Elsevier Inc.

Introduction

Managed care is a generic term describing any health care system that integrates the financing and delivery of medical care [1]. The term “managed care” became more popular in the past decade outside of the United States, and there have been several efforts to introduce managed care tools or managed care–like programs in many other countries [2–5]. The implications of managed care and the growing popularity of consumer-driven health plans are discussed in the international literature [6–10]. All forms of managed care attempt to control costs by modifying the behavior of doctors [11,12].

Cost control and changing patients’ behavior could be considered as advantages, whereas difficulties with choosing a physician who is “out of network” and delaying costly medical intervention might be risky disadvantages of managed care.

Many important reforms took place in the Hungarian health care system in the past 25 years, including a care managing organization (CMO) pilot program introduced in 1999. We aim to provide a description of this program, its environment, incentive structure, and preliminary outcomes.

The Hungarian Health Insurance System

The Hungarian health system is a solidarity-based national health insurance system with compulsory participation for every citizen. There is one purchaser, the National Health Insurance Fund Administration (NHIFA; Országos Egészségbiztosítási Pénztár). The employers and employees pay health insurance contributions to a single fund that is complemented by general budget transfers.

The central government owns most inpatient health care providers. All health care providers have a service contract with the NHIFA, which is a prerequisite for any payment made by the NHIFA to providers. The NHIFA uses a mix of payment methods
for providers at different levels of care. Most of the revenues of the general practitioners (GPs) come from a capitation fee. For outpatient care, a fee-for-service payment system is used. Since 1993, acute inpatient care has been paid by a diagnosis related group (DRG) system (the Hungarian term “Homogén Betegségcsoportok” translates to “Homogeneous Disease Groups”). This adapted DRG payment system covers all Hungarian acute care hospitals.

All health care providers (GPs, outpatient specialists, and inpatient care) submit monthly reports to the NHIFA. For both the outpatient specialist and inpatient care, this report contains detailed information on each patient treated in the institution (personal data, diagnosis, treatment, etc.). There is a centralized database that contains the data of each patient treated in any outpatient department or inpatient institute of Hungary. The patients are identified according to a unique social insurance personal identification number (társadalombiztosítási azonosító jel). With the help of the social insurance personal identification number and the use of this nationwide central database service, patients can be tracked within the whole country. Further characteristics of the Hungarian health care system can be found elsewhere [13–22].

**Key Characteristics of the CMO Pilot Program**

The Hungarian CMO pilot program could be considered a public sector–managed behavioral health care arrangement [23]. Although, as the Hungarian State Audit Office noticed [24], the specific aim of the CMO pilot program was not precisely defined, it had its implicit goals [25], as did other managed care programs [26]. It aimed to monitor and coordinate care through the entire range of services; to emphasize prevention and health education; to encourage the provision of care in the most appropriate setting and by the most appropriate provider; to promote the cost-effective use of services through aligning incentives; to strengthen the primary care and outpatient care; and to improve the quality of care.

The conceptual foundations of the Hungarian implementation of managed care is closer to what is called GP fundholding in the United Kingdom than to health maintenance organizations in the United States, but in terms of techniques used to control cost and improve efficiency, the US managed care experience provided the “toolbox” for reform. It is important to note that there are a number of characteristics of the Hungarian version of managed care that make it a very different system overall. For this reason, we will refer to the Hungarian managed care organizations as “care managing organizations” to signal the difference.

The Hungarian CMOs did not collect premiums. The system operated in a publicly administered noncompetitive national health insurance environment financed primarily through payroll tax. The CMOs did not decide on the level of contributions, nor on the package of services covered. Prices (tariffs) were centrally set by the NHIFA. The pilot CMOs used the same payment mechanisms as did all other providers who were not participating. Opting out from the compulsory national insurance system is not allowed, in contrast to the experience of the exportation of managed care to Chile [8]. The Hungarian CMO model was similar to the UK GP fundholding system in that it provided a capitation budget for a provider who was, in turn, responsible to provide or purchase care for the covered population.

In the operation framework (Fig. 1), provider organizations applied to the NHIFA and had a virtual budget, an adjusted capitation account, determined by the size and characteristics of the population they cover. Enrollment was by the GPs and not the individual patients; therefore, there was no room for risk selection at the patient level. The GP enrolled the population in his or her list into the CMO pilot program. Patients who did not want to be enrolled into the CMO had the option to change their GP to another GP who was not involved in the managed care program. The CMOs were self-selected through an application process, and then systematically selected by the NHIFA. Generally, half the applicants succeeded to become CMOs.

The CMO took responsibility for arranging the whole spectrum of health services to a local or subregional population defined by being on the list of the constituent GPs. However, patients were still free to choose specialists and hospitals including those not contracted by the CMO. The NHIFA paid the actual provider of care for all services according to the national payment system, and then charged the virtual budget of the CMO for all paid services of the population covered by the CMO. Thus, it was not the CMO that paid other providers directly but the NHIFA against the virtual capitation budget of the CMO. The aim was to provide care at the least expensive level that is appropriate for the patient’s condition. Typically, the CMOs run an integrated information system to monitor all patient-related clinical and cost data, and then analyze performance against benchmarks. The source of information was mainly the central database of nationally collected activity information of all health care providers maintained by the NHIFA. It was a keen challenge for the

---

**Fig. 1 – The structure of the Hungarian Care Managing Organization Pilot Programme.**
Hungarian program to also strike a balance between quality of care and health care utilization [27].

Development of the Hungarian CMO Pilot Program between 1999 and 2008

The legal background of the Hungarian CMO pilot program dates back to the end of 1998. After an application process, nine CMOs were selected to participate in the pilot program that started in July 1999. CMOs were all health service providers. Financial institutions were not allowed to participate. The primary requirement for applying to become a CMO was that the organization must already have a service contract with the NHIFA. Applicants had to meet a set of criteria including a minimum number of patients enrolled through participation by their GPs. The main steps in the development of the Hungarian CMO pilot program are presented in Table 1. The size of the population covered by the pilot program increased steadily, reaching 1 million people by July 2003. In the following year, the pilot program was expanded to almost 2,000,000 people through a new application process and seven new qualifying organizations. Over the years, the minimum number of enrollees per organizer increased from 20,000 (1999) to 100,000 (2005). With some merging of CMOs in 2005 and two organizers leaving the program in 2006, the number of organizers decreased to 14, with a covered population of 2.1 million people.

We should emphasize that initially the catchment area of the CMOs was not defined geographically, which allowed for some risk selection through the exclusion of GPs with a higher risk pool. To eliminate this form of risk selection in the pilot, a new regulation was introduced in 2005, which automatically included all patients into the virtual account of the CMOs if the CMOs had already covered 70% of the population of a certain geographical area.

After 2005, data protection rules changed in Hungary and CMOs faced a new challenge. Until 2005, the GPs could have entered into the CMO pilot program by informing their patients about the entry, but after 2005 the patients themselves had to sign a personal statement of agreement to enter into the program and to allow the CMO to use their personal medical data. This new regulation proved to be a severe administrative hurdle that eventually led to the collapse of the pilot program because CMOs and GPs were not able to collect the personal statement from all the people already in the pilot program. Finally, a governmental decree [28] officially declared the end of the pilot program.

Financial Balance of the CMO: Revenues and Expenditures

The revenue of the CMOs came from a risk-adjusted capitation from the NHIFA. The health services covered by the capitation fee are presented in Table 2. As a general rule, we can say that almost all health services that are reported to the NHIFA with the social security number of the patients were covered by capitation. This also means that the Hungarian capitation fee was set on the basis of individual (but aggregated) health care utilization data [29]. Therefore, CMOs’ revenue depends on the population covered instead of the services provided [30].

The calculation of capitation fees was based on data reported for health insurance reimbursement by the health services providers during the previous year. There was a different

---

### Table 1 – Main steps in the development of the Hungarian CMO pilot program.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>No. of CMOs</th>
<th>No. of enrollees</th>
<th>Average no. of enrollees per organizer</th>
<th>% of the total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1998</td>
<td>Legal background for program</td>
<td></td>
<td>200,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 1999</td>
<td>Starting of the pilot program (minimum 20,000 enrollees per organizer)</td>
<td>9</td>
<td>158,984</td>
<td>17,665</td>
<td>1.55</td>
</tr>
<tr>
<td>October 1999</td>
<td>One organizer dropped out</td>
<td>8</td>
<td>140,931</td>
<td>17,616</td>
<td>1.37</td>
</tr>
<tr>
<td>December 1999</td>
<td>Three organizers dropped out</td>
<td>5</td>
<td>88,232</td>
<td>17,646</td>
<td>0.86</td>
</tr>
<tr>
<td>October 2000</td>
<td>New application: increased number of enrollees of current organizers to 200,000 (minimum 40,000 enrollees per organizer)</td>
<td>5</td>
<td>199,882</td>
<td>39,976</td>
<td>1.95</td>
</tr>
<tr>
<td>June 2001</td>
<td>New application: two new entries and number of enrollees reached 500,000 (minimum 40,000 enrollees per organizer)</td>
<td>7</td>
<td>493,076</td>
<td>70,439</td>
<td>4.81</td>
</tr>
<tr>
<td>June 2002</td>
<td>Small changes in the number of enrollees (minimum 50,000 enrollees per organizer)</td>
<td>7</td>
<td>476,531</td>
<td>68,076</td>
<td>4.65</td>
</tr>
<tr>
<td>July 2003</td>
<td>New application: Four new entries and the number of enrollees reached 1,000,000</td>
<td>11</td>
<td>1,000,000</td>
<td>90,909</td>
<td>9.76</td>
</tr>
<tr>
<td>2004</td>
<td>New application: Seven new entries and the number of enrollees may reach 2,000,000 (minimum 75,000 enrollees per organizer)</td>
<td>18</td>
<td>1,885,045</td>
<td>104,725</td>
<td>18.48</td>
</tr>
<tr>
<td>2005</td>
<td>Changes in the number of enrollees, merging of CMOs, and the number of enrollees may reach 2,500,000 (minimum 100,000 enrollees per organizer since July 1, 2005)</td>
<td>18/16</td>
<td>2,283,621</td>
<td>142,726</td>
<td>22.52</td>
</tr>
<tr>
<td>2006</td>
<td>Two organizers left the pilot. Expected decision of the future of the Hungarian CMO program</td>
<td>14</td>
<td>2,066,766</td>
<td>147,626</td>
<td>22.38</td>
</tr>
<tr>
<td>2007</td>
<td>No significant changes in the program</td>
<td>14</td>
<td>2,066,766</td>
<td>147,626</td>
<td>22.38</td>
</tr>
<tr>
<td>2008</td>
<td>Abolishing the Hungarian CMO pilot program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CMO, care managing organization.
CMOs were allowed to use savings to make incentive payments to their contracted GPs and staff members. Since 2003, the CMOs were obliged to set up a complex reward system that included incentives not only for their GPs and staff members but also for the contracted partner providers of the CMOs that played significant roles in the medical care of the enrolled patients. Financial results of the Hungarian CMO pilot program are shown in Figs. 2 and 3. The savings are calculated as a percentage of revenues [32]. Fig. 2 shows the financial results (savings as a percentage of total revenues) of the Hungarian CMO pilot program (1999–2004). The total savings rates for all CMOs for the fiscal years 1999, 2000, 2001, 2002, 2003, 2004, 2005, and 2006 were 3.6%, 10.4%, 6.5%, 8.7%, 3.4%, 4.0%, 2.1%, 2.9%, and 2.9%, respectively. All the organizers realized savings during this period. CMO number 6 and 7 entered the system in June 2001 and so have no data for fiscal year 1999 or 2000 (Fig. 3A). The highest savings were realized in chronic and acute inpatient care and medical devices (Fig. 3B). More detailed data on the savings according to CMOs and type of health services are not available for years beyond 2004.

**Tools of Managed Care Organizations**

One of the greatest challenges for the NHIFA was to create and operate a nationwide monitoring system to control utilization of health services. As a response to the failure to meet this challenge, the CMOs were to improve this function. The CMOs were themselves medical providers and could act locally to control utilization. Their goal was to ensure that care is delivered cost-effectively at the right level without wasting resources. In doing so, they monitored expenditure at all levels (outpatient and inpatient care, drugs and medical devices, computed tomography/magnetic resonance imaging examinations, etc.) and took appropriate actions to maximize efficiency.

In theory, managed care can succeed in two ways: it may lower costs for individual services and/or it may improve the efficiency of service across the full vertical spectrum of service provision for an individual’s illness. By providing more effective care early, it may avoid more costly care at a later stage. By substituting high-cost services with less costly modes of care (e.g., outpatient instead of inpatient surgery, nursing home care instead of hospital care), it may achieve the same ends with less cost. Variations in the treatment of many acute and chronic diseases may be reduced by disease management programs that follow clinical protocols developed as best practices [33].

The organizers of the CMO pilot program took the responsibility of organizing many preventive activities, including

---

**Table 2 – Health services included into and excluded from the capitation fee.**

<table>
<thead>
<tr>
<th>A. Health services covered by the capitation fee</th>
<th>B. Health services NOT covered by the capitation (paid separately)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care of GPs</td>
<td>GPs’ duty</td>
</tr>
<tr>
<td>Dental care</td>
<td>Health visitors, mother, youth, and child care</td>
</tr>
<tr>
<td>Outpatient care</td>
<td>Reimbursement of traveling costs related to health care</td>
</tr>
<tr>
<td>CT, MRI examinations</td>
<td>Certain very expensive, rarely used medical procedures, and expensive disposable tools (e.g., medical sewing machines) and implants</td>
</tr>
<tr>
<td>Renal dialyses (acute and chronic)</td>
<td>Expenditures for disability to work (sick-pay)</td>
</tr>
<tr>
<td>Inpatient care (acute and chronic)</td>
<td>Special drug budget (drugs available with limitations)</td>
</tr>
<tr>
<td>Home care (nursing)</td>
<td></td>
</tr>
<tr>
<td>Drug subsidies for outpatient care (excluding special budget)</td>
<td></td>
</tr>
<tr>
<td>Medical devices</td>
<td></td>
</tr>
<tr>
<td>Balneology</td>
<td></td>
</tr>
<tr>
<td>Caretaking of certain chronic care</td>
<td></td>
</tr>
<tr>
<td>Transportation of patients and death</td>
<td></td>
</tr>
<tr>
<td>CT, computed tomography; GP, general practitioner; MRI, magnetic resonance imaging.</td>
<td></td>
</tr>
</tbody>
</table>

The NHIFA opened a virtual account for each CMO and kept track of revenues from capitation and expenditures of the covered population. At the end of the year, the NHIFA calculated the financial balance of the organizers by comparing enrollees’ per capita rates with enrollees’ use of services. If the financial balance showed a surplus at the end of the year, the CMO realized part of the savings and it was transferred to them as a cash payment. For CMOs that had a deficit, there were no penalties or other consequences. Since 2003, the total savings of all the CMOs collectively formed a reserve, a solidarity fund for compensating the deficits by pilot sites with a negative balance sheet, so that the CMOs had a collective financial risk for losses.

---

**Fig. 2 – Financial results (savings as a percent of total revenues) of the Hungarian Care Managing Organization Pilot Programme (1999–2007).**
screening programs. CMOs could develop programs that offered patients better information about self-care, in terms of both improving individual health habits to reduce risks and monitoring their own health and treatment. Hungarian CMOs could afford to develop information systems that tracked patients over time and provided information to their partners, including primary care practitioners, about patients at risk.

In the Hungarian system, there are no methods for administrative denials of medical care either within or outside of the pilot—which, of course, may lead to overuse in some cases.

**Discussion and Conclusions**

It is often asked whether the experience of managed care in one country can be transferred to another country [34] or even whether managed care is viable for Europe today [35]. Some articles have reported that the US experience is more useful in generating hypotheses rather than predicting results for European countries [36]. This is clearly so for the United Kingdom, and might also be true for Hungary. Table 3 presents a comparison of the managed care programs of the United States, the United Kingdom, and Hungary.

Active purchasing tools that incorporate disease management programs and alignment of incentives between purchasers and providers respond to key issues facing health care reform in many countries. Selective adoption of these tools may be even more relevant in single-payer systems than in the fragmented, voluntary US insurance market where these can be applied more systematically with lower transaction costs and where the effects can be measured more precisely [26]. The Hungarian CMO pilot program tried to implement the advantages of both the US managed care programs and the UK GP fundholding system, within the constraints and opportunities of a Central-European country committed to a single-payer system.
Table 3 – Comparison of the managed care programs of the United States, the United Kingdom, and Hungary.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>US</th>
<th>PPO</th>
<th>GP fundholding (before 1999)</th>
<th>Primary care groups (after 1999)</th>
<th>Hungary CMO pilot program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cream skimming</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Free market access for organizers</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Legal status of managed care organizations</td>
<td>No limitations</td>
<td>No limitations</td>
<td>No</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Financial risk of organizers</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Integration of purchaser and provider</td>
<td>Strong</td>
<td>Limited</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
</tr>
<tr>
<td>Standardized benefits package for consumers</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Health services covered by managed care</td>
<td>No uniform range of services</td>
<td>No uniform range of services</td>
<td>Mainly outpatient services and drug prescription</td>
<td>Whole range of health services</td>
<td>Whole range of health services</td>
</tr>
<tr>
<td>Control of utilization of services</td>
<td>Strong</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Patient freedom to choose providers</td>
<td>Strong</td>
<td>Some limitation</td>
<td>No limitation</td>
<td>No limitation</td>
<td>No</td>
</tr>
<tr>
<td>Geographical monopoly of organizers</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Limited not compulsory but preferred</td>
</tr>
<tr>
<td>Selective contracting with providers</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Price competition of providers</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

CMO, care managing organization; GP, general practitioner; HMO, health maintenance organization; PPO, preferred provider organization.

The implementation of the Hungarian CMO pilot program could be considered an important step in the continuous process of health care reform. Previous elements of Hungarian health care reforms (e.g., implementation of a DRG system of payment for inpatient care) provided a solid foundation and experience for inpatient care reforms (e.g., implementation of a DRG system of payment for inpatient care), allowing this reform to evolve from the bottom-up, and to be driven by local management incentives. The key elements of the Hungarian CMO model can be summarized as follows:

1. The CMO model provided a transparent incentive system for both organizers and providers that counteracted and balanced the adverse incentives in the current system (such as increasing output/volume of providers, influence by representatives of manufacturers of health industry).
2. The efficiency gains by providers allowed them to obtain additional resources for further investments. The Hungarian model focused on reducing unjustified expenses instead of increasing revenues.
3. Cooperation between CMOs and other providers with whom they contract for services.
4. Information asymmetry between the insurer and providers had been reduced with the entry of CMOs. The information flow and many forms of formal and informal collaboration between the different players have contributed to exploring potential efficiency gains in the system.

It was expected that this pilot project will improve both the effectiveness and efficiency of care by reducing duplication and parallel service provision, avoiding unnecessary referrals, and reducing providers’ incentives to induce demand for specialist outpatient and inpatient care.

The usual complaints [26] against managed care organizations (cost saving; provider reimbursement is too low to provide adequate health care; quality of care provided by managed care organizations is substandard) were under serious scrutiny in Hungary, but not supported by evidence. There was no evidence on denial of care or reduced access to high-cost services. The Hungarian program contributed to the use of health economics in decision making in health care [37].

The Hungarian CMOs were encouraged to follow a strategy of investment in areas such as primary care, prevention, case management for high-risk patients, and medication reviews. CMOs were incentivized to explore all potential efficiency gains such as following protocols for early treatment, or providing medical follow-up care to avoid rehospitalization.

In parallel with the development of CMO pilot program, several other tools were applied for cost-containment in Hungary. In 2004, in addition to the DRG-based hospital financing, a financial cap was introduced for acute care hospital financing [38]. In 2006, 25% of acute care hospital beds were either closed or transformed to chronic care beds [39]. Both might have contributed to the improved efficiency of the Hungarian health care system [40].

The CMO pilot program prompted heated debates during the past years in Hungary. Some people considered it as incompatible with the Hungarian solidarity-based health insurance system; therefore, they wanted to cancel the program. Other experts thought that this program could serve as an important starting point for further health care reforms. Regardless of the opinions...
of experts, scholars, and participating stakeholders, enrollment in the Hungarian CMO pilot program declined during the period 2006 to 2007 and it was officially abolished in 2008 without a comprehensive evaluation of its performance.

Key Points

1. What is already known about the topic?
   - Managed care is a generic term describing any health care system that integrates the financing and delivery of medical care.
   - Managed care is an important approach of organizing health care systems in the United States.
   - GP fundholding proved to be an important tool for health care reform in the United Kingdom.

2. What does the article add to existing knowledge?
   - This article describes the experiences with managed care/ fundholding approach in Hungary.
   - We analyzed the cost-saving potential of managed care in an Eastern-European setting, in Hungary.

3. (optional) What insights does the article provide for informing health care-related decision making?
   - This article informs health care decision makers about the possibilities of care managing programs in an Eastern-European setting.

Acknowledgment

The present scientific contribution is dedicated to the 650th anniversary of the founding of the University of Pécs, Hungary.

Source of financial support: This study was supported by Wellbeing in the Information Society (SROP-4.2.2.C-11/1/KONV-2012-0005).

REFERENCES