

Implementing risk adjusted capitation payments with health care reforms: the case of Hungary

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Introduction - The plan of a new health care system

The Hungarian government was planning to introduce new health care arrangements by establishing organizations (sickness funds) with devolved responsibilities for the management of health care. These organizations' task was to take over responsibilities from local governments and ensure coverage for the population in their jurisdiction (i.e. 200 000-1,5 million beneficiaries per sickness fund). According to the government's plans the sickness funds would have taken over the direct financing of the providers from the National Health Insurance Fund Administration (NHIFA) while the financing methods would have remained untouched: service prices, the range of health care provisions and payment methods were planned to be kept determined by the central administration. In this proposed system the sickness funds were planned to be financed through a weighted (risk adjusted) capitation with an aim to promote an equitable and efficacious allocation of resources. The weighted capitation scheme was designed to cover the majority (91%) of in-kind benefits, including primary care, outpatient specialist care, dialysis, computer tomography (CT), magnetic resonance and imaging (MRI), home care, inpatient services and medicines subsidies. Sickness funds would have been obliged to cover all their costs (funding providers, administration costs) from the capitation revenues and make up their deficits from their own reserves. Health care services that were not planned to be covered by the capitation scheme would have been financed by NHIFA and reimbursed from a National Risk Pooling Fund. In this proposed system capitation payment was planned to play a crucial role in (1) ensuring the flawless operation of the health care market through reducing incentives to risk selection and in (2) securing equitable allocation of resources for sickness funds that arrange health care for the entire Hungarian population.

However the above health care reforms were enacted in March 2008, as a result of intensive public debates and a strong political pressure on the government the new regulations were withdrawn in May 2008.

Objective

The objective of this research was to identify the criteria, the available means and the applicability of implementing a capitation based resource allocation for the proposed sickness fund system by exploring the possible hurdles the Hungarian system might face and by defining the optimal conditions that help achieve predefined resource allocation goals.

Methods

To fulfill the objectives of the research we explored the possibilities of applying simple risk adjustment and risk sharing methods in the context of the proposed health care arrangements. For doing so, we reviewed the current resource allocation patterns and analysed the effects of the proposed (age and gender based) capitation payments on the allocation of health care resources. For our analysis we used national health insurance expenditure data from 2007. The examined capitation payment formula distinguished 8 age-groups and the 2 genders (16 cells) and the per capita payments were determined according to population's average health care expenditures.

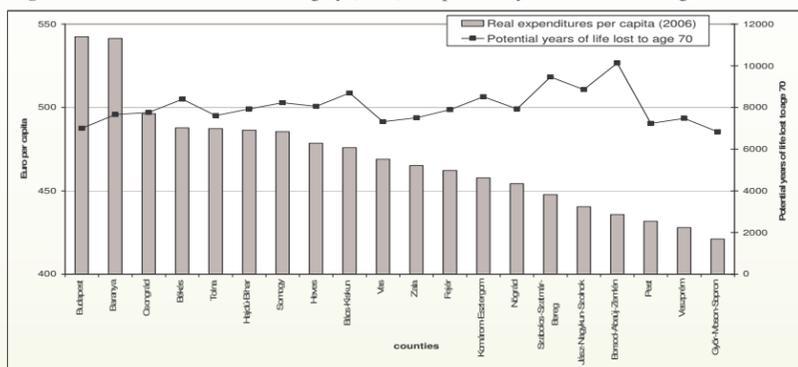
Results

Our analysis showed that the population's need across different regions is not particularly reflected by the health care provider structure in Hungary. In certain areas people have better access to health care than in other areas. This difference is particularly apparent between rural and urban areas, and as a result the allocation of health care resources can be regarded as inequitable in many aspects. **Figure 1** shows how total payments change by counties in the current health care system; it also shows the population's potential years of life lost to age 70, presented as a proxy of health care needs. The comparison of needs (potential life years lost) and current resource allocation patterns (health care expenditures) clearly demonstrates that these two have very little in common.

Figure 2 shows how total payments change by counties when resources were allocated by the demographic formula. Some regions show more than 10% divergence from the current health care expenditures which again indicates a different allocation of resources across regions. Moreover, the population's health status (measured by potential years of life lost to age 70) presents a very dissimilar distribution to the capitation based allocations. Health status compared to either current expenditures or the demographic allocations indicates that there is very little in common across the current allocation of health care resources, the allocation suggested by the demographic formula and health care needs.

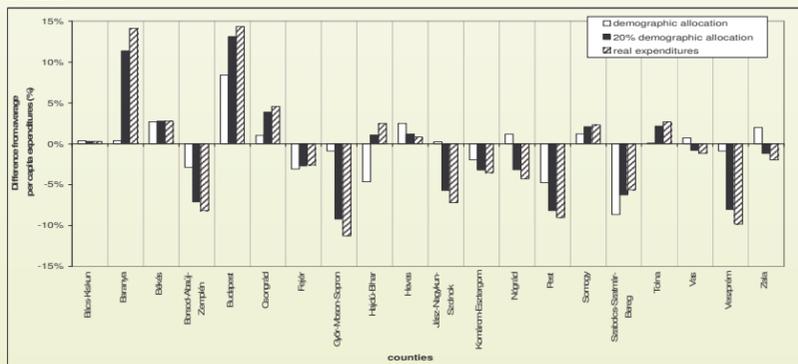
It is also demonstrated in **Figure 2** that the reallocation effect of using the pure demographic formula would be too large in comparison to current health spending and it is supposed that such dramatic reallocation across regions would threaten health care delivery. However the health insurance act – proposed by the government – set out a high level of proportional risk sharing: 80% of sickness funds' costs were to be reimbursed on the basis of their current expenditures. On **Figure 2** we demonstrated this risk sharing effect. The black columns show the allocations when 80% of payments were reimbursed on the basis of actual expenditures (i.e. 20% demographic allocation). It is seen that this high level of risk sharing sufficiently tempered the financial risk of the health care organizations.

Figure 1 Resource allocations in Hungary (2006) and potential years of life lost to age 70



Note: 1 Euro = 230,31 HUF; potential years of life lost to age 70 = potential years of life lost to age 70 per 100,000 citizens; Source: Nagy et al 2007

Figure 2 Total payments change by counties when resources were allocated by the demographic formula



Source: based on Nagy et al 2007

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Conclusion

The broad challenge faced by Hungary in the beginning of 2008 was to adopt a new health care system approach to improving the performance of the health care sector while preserving historically strong principles of equity. This was being attempted by the implementation of a competitive sickness fund market where the allocation of resources to sickness funds was planned to be carried out through the capitation payment mechanism. Capitation based resource allocation was facing two broad challenges. Firstly, there has been large inequities in the access to health care delivery that needed correction. Secondly, risk selection was threatening with the introduction of the sickness fund competition. Therefore capitation would have had an important role in securing equal access for equal needs and also in preventing incentives for risk selection. To achieve these goals the improvement of the capitation payment scheme with the method of risk adjustment was recommended, although simple risk adjusters (i.e. age and gender) were proved to be poor proxies of health care needs. To improve the accuracy of capitation payments we first recommend the use of further risk adjusters. Risk sharing is to be considered as secondary strategy although our results show that it may have a dominant role during the implementation of such simple (i.e. demographic) capitation payment schemes.

The introduction of the competitive insurance market was after all abandoned in Hungary. In spite of this fact the authors are convinced that setting risk adjusted capitation payments can have an important role in improving the efficacious and equitable allocation of Hungarian health care resources in the future.