

QUANTITATIVE EVALUATION OF HEALTHCARE DEVELOPMENT PROJECTS OF THE NATIONAL STRATEGIC REFERENCE FRAMEWORK

EVALUATION REPORT

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Prepared by:

Péter Elek (Department of Economics, Eötvös Loránd University)

Márton Varga (Budapest Institute for Policy Analysis)

Balázs Váradi (Budapest Institute for Policy Analysis)

Also contributed: Norbert Kiss (Hétfa Research Institute)

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EXECUTIVE SUMMARY

The Quantitative Evaluation of Healthcare Development Projects

The quantitative evaluation of healthcare development projects was undertaken by the Budapest Institute for Policy Analysis between July 2012 and February 2013; data analysis started in November 2012. The evaluation is closely related to the general evaluation carried out by Hétfa Research Institute and Revita Foundation: the findings of this quantitative analysis were used in formulating the conclusions of the general evaluation. In line with the call for proposals, the quantitative evaluation has a narrower scope than the general one; it focuses on the targeting of development funds as well as the ex-post impact evaluation of outpatient care programmes. It does not cover the evaluation of the medical equipment register and lifestyle development programmes.

Chapter 1, using statistical methods, compares the allocation of development funds among micro-regions with healthcare needs (proxied by the distribution of avoidable mortality) as well as with the degree of general development of micro-regions (measured using the complex development indicator). This relationship was then collated with the distribution of funds available through the traditional funding channels of healthcare (that is, expenditure of the Health Insurance Fund spent on buying services) on the different levels of provision. The analysis relied on detailed data provided by the National Health Insurance Fund Administration (OEP) and the Development Agency's own Unified Monitoring Information System (EMIR).

Chapter 2 analyses the targeting as well as the economic and health-related impacts of the development of the outpatient service system (SIOP¹ 2.1.2., SIOP 2.1.3. and related RDOP² schemes). Since the impact of several interventions on health in general can only be measured in the long run and it is too early for that, the evaluation focused on those short-term impacts which, on the basis of scientific evidence, are supposed to contribute to the economic sustainability of healthcare provision as well as to the improvement of general health and public health indicators. To this end, impacts on the use of in- and outpatient provision, disbursements of sick pay and certain elements of quality indicators of general medical provision

¹ Social Infrastructure Operational Programme

² Regional Development Operational Programme

(screening and care) were examined by the econometric methods of ex-post impact evaluation (panel data regression and matching). The analysis mainly relied on detailed data from the National Health Insurance Fund Administration (OEP), the National Institute for Quality and Organizational Development in Healthcare and Medicine (GYEMSZI) and the National Public Health and Medical Officer Service (ÁNTSZ).

Finally, both Chapters offer conclusions and recommendations so that future ex-ante and ex-post impact evaluations would be conducted more smoothly and that development projects take account of factors of cost efficiency and access to services, with a view to the healthcare priorities of the 2014-2020 programming period of the European Union.

Key findings and conclusions

1. Based on the **analysis of the targeting of healthcare development projects**, the following findings have emerged.
 - 1.1. Since one of the aims of the development projects was to increase the efficiency of provision by developing provisions of lower degree of progressivity (especially outpatient services replacing inpatient provision), we have examined the **allocation of development funds among levels of progressivity** (primary/outpatient/inpatient care), comparing it with the allocation of regular budget funding received from the central budget by way of the Health Insurance Fund.
 - In case of outpatient provision, the analysis has revealed a shift towards lower progressivity levels, because as opposed to a 19% share of regular funding, it received 27.5% of development funds. Inpatient provision received about 59% of both regular funding and development funds.
 - Health promotion was granted a higher amount than from “regular” resources (because of funding lifestyle programmes). Blood supply and ambulance had about the same share of development funding as of regular funding.
 - Primary care, in accordance with plans, was less of a priority in development projects. To some extent, this was inevitable due to the fact that infrastructure represents a smaller proportion of the expenses of primary care. Nevertheless, in the future, the

role of primary care in providing integrated proximity services will have to be determined.

1.2. We have examined the **relationship between the distribution of development funding among micro-regions and by healthcare needs, and more generally, development needs** as well as the utilisation of regular funding from the Healthcare Fund (in terms of expenditure per capita).

- **Development funding is well-targeted** in the sense that a higher than average proportion of it was granted to micro-regions with poor health indicators (avoidable mortality) and general economic conditions (complex development indicator), while micro-regions with healthier populations had an above-average share of regular healthcare funding. The development of primary care was the best-targeted, with outpatient care lagging only slightly behind. Although to a lesser degree, it is true even for inpatient care development projects that micro-regions with worse indicators received above-average development funding.
- All this does not entail that there is no scope for improving the targeting of development funding. In other words, we cannot say that all micro-regions with poor indicators received such amounts of funding as are the most efficient for contributing to improving the health of the population). However, if we are right in expecting healthcare projects to contribute to improving the health of the population at all, it is very likely that **the projects implemented reduce health inequalities**. Actual changes will of course not only depend on the infrastructure built or refurbished. Needless to say, future achievements will also be influenced by changes in human resources in healthcare and their regional imbalances as well as by factors outside the health care system (e.g. changes in the social and economic situation in the localities in question).

2. In relation to **evaluating the development of specialist outpatient provision**, the following findings have emerged.
- 2.1. The development projects have resulted in **improving access to the provision, expressed in terms of theoretical journey time**: basic specialized outpatient care (for four basic specializations) may now be reached by car or coach in 20 minutes by about 300-310 thousand more people than before the development projects were implemented.
- 2.2. The hours worked at the new outpatient clinics are quite low in most specializations (which is mainly due to application requirements concerning maximum scale). In internal medicine **the exploitation of capacities** is average; in most other specializations it is **lower than in older outpatient clinics of similar size**. That raises the question whether these projects will be financially sustainable without extra funding – taking fixed costs into account and assuming linear financing of usage. Nevertheless, benefits will be experienced by users and the efficiency of provision will also increase, therefore, the sustainability of these institutions cannot be solely judged by their financial stability. The healthcare administration is advised to consider this when changing the funding system of the provision of outpatient care.
- 2.3. The diversion of patient paths of the population of micro-regions to new, nearby places of provision was far from complete. **Only 35-45% of cases in the catchment areas of the new outpatient clinics in the three major specializations were treated by the new providers**. Further thorough analysis of factors of diversion in the future would support the efforts of the healthcare administration to optimize patient paths.
- 2.4. **Building outpatient care capacities (SIOP 2.1.2.) resulted in a 25-30% increase in the use of outpatient care** (while in SIOP 2.1.3. and RDOP only a few percents of increase was detected). Expansion was the largest in the field of rheumatology, while in paediatrics it was not significant. The development projects had more significant impact on the elderly and on women. As a result of the projects, the number of outpatient cases per 100 inhabitants in micro-regions where the SIOP 2.1.2 project was implemented increased from an earlier low level to the average of similar micro-regions (i.e. that are not county seats and are not in Central Hungary). The growth in the number of cases due to the projects indicates how important "supply induced demand" in Hungary is in determining the use of healthcare services. The impact estimates provided by this study may be used in the impact assessment of other development projects as well.

2.5. **Introducing one-day provision dramatically increased the proportion of one-day provision** in surgery, obstetrics and gynaecology as well as ophthalmology. For active inpatient care (maybe because the reference period was not long enough), there were no unequivocal findings. However, in the case of cataract operations, need for active care decreased as a result of the development of one-day provision. Further, detailed cost-benefit assessment (e.g. to examine how inpatient institutions react to the drop of the number of interventions) would reveal the extent of benefit to society provided by the projects. In light of this, further, similar development projects may be recommended for the 2014-2020 period.

2.6. As a result of SIOP 2.1.2 and 2.1.3 projects, the **cases and days of incapacity for work (sick pay) have decreased.**

Main recommendations

In addition to recommendations offered in the general evaluation, we make the following recommendations on the basis of our findings.

1. If the aims of reducing regional inequalities, improving the situation of disadvantaged groups and settlements as well as promoting cost efficiency are retained in the period of 2014-2020 in healthcare development projects, the following should be considered:
 - **explicit geographical targeting** – based on healthcare needs if necessary – in distributing funds (similarly to the extant “Most disadvantaged micro-regions” program but taking into consideration the lessons learned there);
 - **increasing the weight of outpatient provision and especially primary care** in the distribution of funds.
2. If further outpatient institutions are developed in the period of 2014-2020, it seems expedient to **use the impact parameters provided in this study in the ex-ante assessment of the expected results of plans during the process of development** and, in the case of calls for proposals, to quantify the expected results of projects on the basis of the findings of this study. The findings of the quantitative evaluation provide an insight into the significance of factors of the supply side (i.e. capacities) in the use of healthcare services and

thus the impact estimates obtained in this study may be used in the ex-ante impact assessment of other development projects.

3. Both healthcare provision and development policy (as well as healthcare policy) can only achieve the maximum social return on the spending of available funding if they can rely on relevant, up-to-date and accurate data, such as can be analysed by adequate statistical methods. For the data to be useful, it is best if they are broken down to both individuals/institutions and to different points and periods in time and if they are comparable to the data of other countries. **When examining the healthcare development projects, we discovered several opportunities for the improvement of data collection, registry and handling.** They include the master database of in- and outpatient provision (among others, their alignment by OEP and ÁNTSZ, or the more precise identification of the location of institutions) or the more precise identification of one-day provision.