# Health care public investment subsidies – case study of palliative care in the Czech Republic

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**Abstract**

When designing a public investment programme it is necessary to pay attention to how the goal indicators of the programme are set. If the goals chosen are not suitable there is a risk of ineffective use of public resources. This paper presents a case study of a public investment programme supporting palliative care in the Czech Republic. It focuses on a comparison of good practice, OECD recommendations for performance management and the current investment subsidies programme proposed by the Ministry of Healthcare. The authors recommend changes to the proposal in order to enhance the effectiveness of its state financing.

*Keywords: public investment; health care;, performance budgeting*

JEL Classification: H51, I14, I18

## 1 Introduction

Palliative care in the Czech Republic is not one of the most popular topics in healthcare, either from the point of view of public finance, nor in terms of the attention given to it by experts on the economics of healthcare. The final moments of human life are also not particularly popular among politicians or the electorate.

However, the Ministry of Healthcare (MoH) has recently decided to enhance its support for palliative care by means of a new investment subsidies programme. This programme is currently under discussion with the Ministry of Finance, whose agenda it is to approve investment programmes for all ministries, because these programmes make use of state finances. If the programme is approved, state budget resources can be allocated to it.

The main objective of this paper is to evaluate the proposed programme for supporting palliative care in the Czech Republic and establish whether it meets the recommended principles of performance budgeting. The paper focuses on the programme's goals, which are crucial elements for the effective allocation of public resources.

The paper is divided into four parts. The first part describes the respected principles of performance budgeting, in particular as regards setting the goals. The second chapter introduces MoH's intentions and the main features of its proposed programme. We then confront this with good practice in performance budgeting. The last chapter concludes our findings and recommends changes to the programme design.

## 2 The Performance Management of Programmes: selected methods

In this part of the paper we introduce some of the approaches to performance measurement. Some of them are applied in the private sector but can be also translated into the public sector for programme management. This is important because programme objectives ought always to specify milestones to be attained within certain time periods, but in practice, statements of objectives are often overly general, vague and open-ended in terms of their timescale. [8]

These approaches are used as benchmark methods a provide criteria for evaluation of proposed subsidy programme of the MoH. The first one, SMART strategy is commonly used for setting the goals properly. The second, OECD Performance Management manual, is recommended by this international respected organisation when designing public finance programmes. Finally, the result chain of performance concept enables to point out on the basic misconception of the proposed programme.

One widely used method is known as the *S.M.A.R.T strategy* (a mnemonic acronym) and was first mentioned by George T. Doran in the November 1981 issue of Management Review. According to this strategy, objectives should be *Specific* – they should target a specific area for improvement; *Measurable* – they should quantify or at least suggest an indicator of progress; *Assignable* – they should specify who will do it; *Realistic* – they should state what results can realistically be achieved, given the resources available; and *Time-related* – they should specify when the result(s) can be achieved [4].

Even though the original characteristic of the third smart objective was Assignable, for the purposes of our paper we would choose another option mentioned by other authors - Achievable. This implies a necessity to set objectives at the right level, so that they are not only ambitious but also achievable.

According to OECD it is vital to ask key performance management questions in the following areas when setting objectives for various public tasks:

- Management and Improvement: is the internal use of performance management, to support management and continuous improvement, a major objective?
- Accountability and Control: is the external use of performance management, to increase accountability to responsible ministers or to the public, a major objective?
- Savings: are direct savings on the budget a major objective? [7]

As every public programme should be evaluated, the following questions must also be asked for performance management as presented by the OECD:

- Indicators: are simple and transparent indicators used as performance measures?
- Measurement Systems: are specialised systems used to measure performance?
- Qualitative Measures: are qualitative, indirect measures used along with quantitative measures?
- Processes (Activities): are measures of processes, activities or new initiatives important in performance measurement?
- Efficiency (Outputs): are measures of outputs important in performance measurement?
- Effectiveness (Outcomes): are measures of outcomes important in performance measurement?
- Service (Delivery) Quality: are service quality measures important in performance measurement?
- Financial Performance (Economy): are financial measures (cost of inputs, etc.) important in performance measurement? [7]

As a result, well-defined programmes need to be anchored in a strategic plan incorporating the aspects listed below.

- General or strategic goals and objectives for the organization's main functions and operations.
- A description of the guidelines to be followed to attain the goals and objectives.
- Identification of external factors crucial to the organization which are beyond its control and which could have a significant impact on the attainment of general goals and objectives.
- The plan is used to define or revise general goals and objectives. [3]

OECD recommends that the strategic plan's term of duration should not only exceed five years, but should be consistent with a medium-term budget framework, which is periodically updated. On the base of the strategic plan, annual implementation plans or operating plans are made. This should all be prepared with direct links between the long-term goals of the strategic plan and those identified in the budgets, to provide a point of reference for annual progress evaluations.

Other authors emphasize the importance of the result chain of the performance concept: "In the results chain framework, outputs are produced using inputs (resources) via activities and processes, and outputs generate outcomes for the community... effectiveness is about the extent to which programs achieve their intended outcomes…(and) the extent to which a service delivers the benefits which it is supposed to deliver to society "[9] In all stages of the chain, there has to be clear identification of goals that are intended to achieve, especially at the outputs and outcomes stage.

**Figure 1: The result chain of performance concept (source: [9] )**


To the chain performance concept also refers a term 'span of performance' introduced by Bouckaert & Halligan, where the whole chain from input to outcome can be covered by performance management. This means that the reality is more complex, especially in the public sector unlike in a machine-based, routine-featured production function with a direct link between input, activities and outputs. As a result of a broad 'span of performance' there is a need to distinguish within a variety of emphasises on a performing public sector. The emphasis could be narrow, focusing on economy (input/input), on efficiency or productivity (input/output), or broader, focusing on effectiveness (input-effect/outcome), or broadest focusing on linking trust to input, or output, or effect/outcome. Thus there is a need for different spans of performance for different purposes in the public sector [2].

Another point is that the most important chain of the measurement process is neither measurement itself nor the resulting data but finding a purpose of measurement. Performance measures can be used for multiple purposes. Moreover, different people have different purposes. Legislators have different purposes than journalists. Stakeholders have different purposes than public managers [1].

## 3 The proposed investment programme

In August 2016, the MoH proposed a new investment programme "Support for Hospice Palliative Care in the Czech Republic" (the Programme) [6]. The support would be provided by subsidies that would be released during the six-year period 2017 – 2022, as shown in Table 1:

**Table 1. Planned resources for the Programme in mil. CZK (Source: [6] )**

| Year | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total |
|---|---|---|---|---|---|---|---|
| **State budget resources** | 10,500 | 12,500 | 12,500 | 15,000 | 15,000 | 15,000 | 80,500 |
| Other resources | 4,500 | 5,360 | 5,360 | 6,435 | 6,435 | 6,435 | 34,525 |
| Total | 15,000 | 17,860 | 17,860 | 21,435 | 21,435 | 21,435 | 115,025 |

These subsidies would be given to non-state non-profit organizations that provide palliative and hospice care. The recipients of the subsidies would also include municipal and regional organizations. The Programme's main goal is to make sure 5 hospice beds are available per 100,000 inhabitants in the Czech Republic by 2022. The current overall number in the Czech Republic is 476 beds, therefore the desirable number is 516 beds when the Programme finishes in 2022.

The Programme is divided into two sub-programmes:

1) The Renovation and Purchase of Movable Assets

2) The Development of Immovable Infrastructure

The first sub-programme is dedicated to the renewal of existing mobile hospice (home care) capacity by purchasing necessary equipment. The quantitative indicators for this sub-programme are defined as follows:

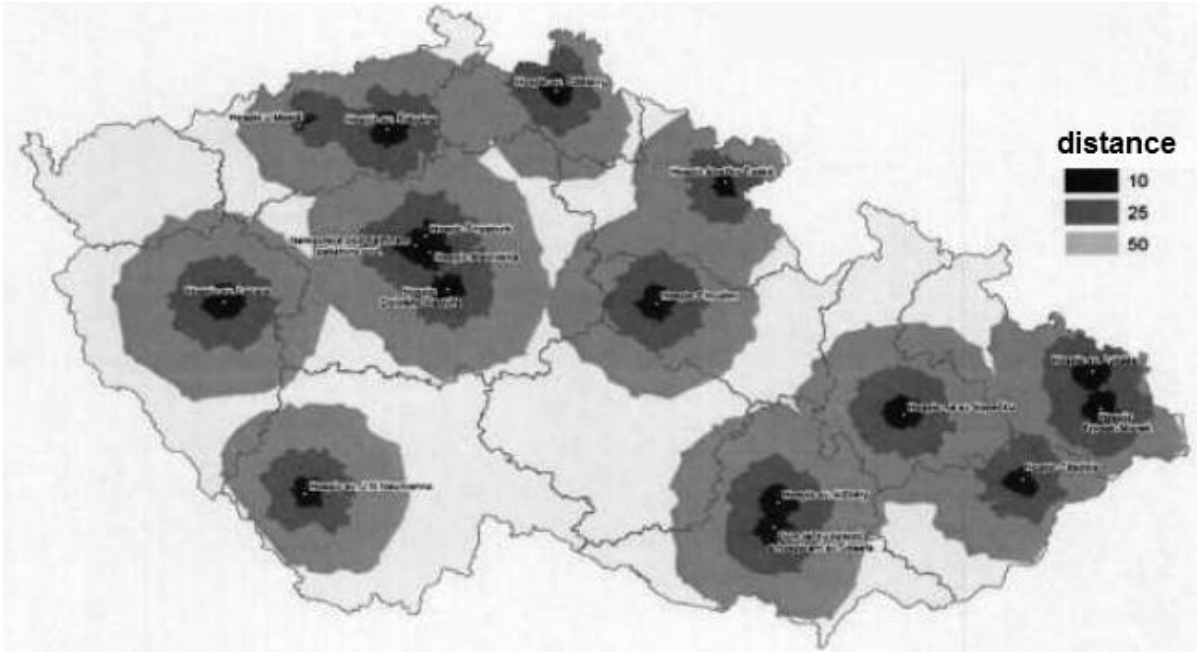
**Table 2. The Quantitative Indicators for the first sub-programme, numbers of devices purchased (Source: [6] )**

| | |
|---|---|
| Adjustable beds | 40 |
| Anti-bedsore mattress | 40 |
| Lifter for immobile patients | 16 |
| Infusion pump | 20 |

The second sub-programme is intended to broaden the capacity of immobile hospices. This may include establishing new hospices as well as reconstructing existing hospices to make way for new rooms and beds. Its goal is to create 40 new hospice beds and thus raise the number of available hospice beds per 100,000 inhabitants from 4.6 to 5.0 to fulfil a requirement of European Association for Palliative Care - 50 palliative care beds per 1,000,000 inhabitants [5].

The MoH also pointed out that the net of hospices in the Czech Republic is geographically unbalanced as there are two out of 14 regions where no hospice exists – Karlovarský and Vysočina region. However, programme does not consist any priorities to solve that inequality. Regional inequality is clearly seen on the Figure 2:

**Figure 2. Distance coverage of hospice in the Czech Republic in kms (source [6] )**




## 4 Comparison and recommendation

In this chapter, we test the suitability of various quantitative goal indicators. Three of these are indicators proposed by the MoH (money spent from the state budget, number of beds

in hospices per 100,000 inhabitants and number of devices purchased), and we further suggest four more:

- *% of population within a given distance of a hospice* – the ideal value for this indicator is 100 %; this indicator is designed to deal with the problem of regional inequality
- *% of population within a given travelling time to the nearest hospice* – the ideal value for this indicator is 100 %; the purpose is the same as in the case of the previous indicator but this indicator takes into account different transport service provision in different regions
- *waiting time* – the ideal value is 0 months; this indicator measures to what extent care is provided as soon as it is needed
- *number of patients waiting*– the ideal value is 0 patients; this is connected with the previous indicator but is focused more on whether palliative care is provided to all patients who need it

In addition to the ideal values given, real goal values for the indicators must be set after discussion with experts and politicians. We do not set out to suggest the exact values here; the objective of this paper is to discuss the possible goal indicators for the programme in question.

Firstly, we use the result chain of performance concept in order to assess which stages are covered by each evaluated goal indicator. As Table 3 shows, the three indicators proposed by the MoH are only connected with inputs or activities that are used for providing public services. On the contrary, the four indicators we propose are connected with outputs and outcomes. Two of these can be considered to fulfil both output and outcome criteria, because in the field of palliative care there is no "classic" outcome indicator such as life-expectancy.

**Table 3. Goal indicators and result chain (Source: Authors)**

| Indicator | Input | Activity | Output | Outcome |
|---|---|---|---|---|
| State budget finance | X | | | |
| Number of beds in hospices per 100,000 inhabitants | | X | | |
| Number of equipment purchased | | X | | |
| % population – distance | | | X | |
| % population – travelling time | | | X | |
| Waiting time | | | X | X |
| Number of waiting patients | | | X | X |

The question, why the MoH proposes objectives of its programme in the way it does not include output or outcomes based goals, could be answered simply. The MoH has not adopted principles of the performance budgeting and historically has not follow trends of good performance management. It still relies on incremental budgeting and the prioritisation of the expenditures is performed in the "black box".

In the following text, we focus on the non-financial indicators. Table 4 shows which S.M.A.R.T. criteria are accomplished (X) by the indicators. However, the achievement of some indicators is under discussion (D) and depends on other factors.

**Table 4. Accomplishment of S.M.A.R.T. criteria by the quality of health care indicators (Source: Authors)**

| Indicators | S | M | A | R | T |
|---|---|---|---|---|---|
| **Current:** | | | | | |
| Number of beds in hospices per 100 000 inhabitants | **D[1]** | **X** | **X** | **X** | **D[2]** |
| Number of the equipment purchased | **X** | **X** | **X** | **X** | **D[3]** |
| **Proposed:** | | | | | |
| % population – distance | X | X | D[4] | X | X |
| % population – travelling time | X | X | D[5] | X | X |
| Waiting time | X | X | D[6] | X | X |
| Number of waiting patients | X | X | D[7] | X | X |

D[1] – Although this criterion is quite specific at first sight, it assesses an average value and does not deal with the diversity of regions in terms of number of inhabitants and distribution of hospices. This is why we propose indicators such as % of population within a certain distance, measured both in km and in terms of travelling time to the nearest hospice.

D[2], D[3] – Despite the fact that the beginning and end of the programme are stated, there is no step by step guidance for its implementation.

D[4], D[5] – As these indicators are only our proposal, the % level of the population that would be acceptable has not yet been set, nor has the specified catchment area in terms of distance (km) and travel time. It would be essential to achieve a political and professional consensus on these values. For the distance measured in km we preliminarily take into consideration 50km.

D[6], D[7] – Due to the nature of palliative care, which is usually provided in pre-death situations, it is necessary that it be provided instantly with no waiting time. Even though this criterion might not be achievable all the time, the ambition should remain such, therefore it is desirable to set the goal at zero.

Table 5 shows the fulfilment (X) of performance management questions defined by OECD. At first sight there is an obvious deficiency in terms of the absence of any measurement system or qualitative measures for the programme. The same situation is true for service quality, where no standards of quality for new hospices are set. Financial measures are also missing.

**Table 5. Performance management questions by OECD applied to the programme (Source: Authors)**

| Questions | Fulfilment |
|---|---|
| **Indicators:** are simple and transparent indicators used as performance measures? | **X** |
| **Measurement Systems:** are specialised systems used to measure performance? | |
| **Qualitative Measures:** are qualitative, indirect measures used along with quantitative measures? | |
| **Processes (Activities):** are measures of processes, activities or new initiatives important in performance measurement? | **X** |
| **Efficiency (Outputs):** are measures of outputs important in performance measurement? | **D[1]** |
| **Effectiveness (Outcomes):** are measures of outcomes important in performance measurement? | **D[2]** |
| **Service (Delivery) Quality:** are service quality measures important in performance measurement? | |
| **Financial Performance (Economy):** are financial measures (cost of inputs, etc.) important in performance measurement? | |

D[1] D[2] – Initially, measures for outputs and outcomes were omitted in the programme. However, we have proposed measures for both outputs and outcomes.

Outcome-oriented goal indicators are the most desirable because they are closely connected with quality of life and with the satisfaction of taxpayers/patients' needs. Indicators

“Waiting time” and “Number of waiting patients” also fulfil S.M.A.R.T. criteria and help to comply with the OECD principles for performance management of public programmes.

However, the availability of relevant statistics also matters. Neither of the two indicators mentioned above are monitored nowadays. According to the MoH (in correspondence with us, there is no evidence that any patient has to wait at all before being accepted by a hospice in the Czech Republic. But this may change very quickly as the population ages. Thus, we recommend that a systematic system be developed to monitor of these indicators, which should include obligatory reporting to the MoH for all hospices.

Regional inequality could deepen if the only goal-oriented indicator was the overall number of beds in hospices in the country. Therefore, we strongly recommended using indicators that enable the problem of inequality to be monitored and improved. Put simply, state finance should be sent to the regions in which patients have to travel the longest distance or have longest travelling time to their nearest hospice. This is important both for serving patients and for their relatives who want to visit them. Visits from relatives play a very important role for palliative patients and are a crucial part of palliative care [5].

## 5 Conclusion

It is important to determine target indicators correctly to ensure effective use of public expenses. These indicators should be based on verified methods and connected to a suitable evaluation system. Firstly, the target indicators and their values must be agreed upon. The resources should be distributed on this basis only, not the other way round as is common practice at the MoH of the Czech Republic.

We have shown that in the case of a proposed programme to support palliative care, geographical differences were entirely omitted in the indicators proposed by the MoH, which could result in unequal access to palliative care. The target indicators proposed had no informative value as regards improvement of services and quality of life. Further there was no detailed schedule provided to describe how the targets would be met; this would help to reduce the risk of schedule non-compliance.

To overcome the above mentioned problems, we suggest that the target indicators should be extended and complemented by specific output and outcome indicators. These would enable the allocation of public funds in such a way as to eliminate unequal access to care not only for patients but also for their relatives. Furthermore, it would be better to monitor whether the patients' needs are actually fulfilled by the service provided. It is also essential to implement a phased approach to meeting individual targets, ideally with an annual timescale.

The possibility of using the optimal target indicators is limited at present by an insufficient data base. Nevertheless, this does not mean that we should not strive to obtain robust statistics.

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