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Rendering hospital budgets volume based and open ended to reduce waiting lists: Does it work?

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ABSTRACT

In the past decades fixed budgets for hospitals were replaced by reimbursement based on outputs in several countries in order to bring down waiting lists. This was also the case in the Netherlands where fixed global budgets were replaced by budgets that are to a large extent volume based and in practice open-ended. The objective of this study was to examine the effectiveness of this Dutch policy measure, which was implemented in 2001.

We carried out a statistical analysis and interpretation of trends in Dutch hospital admission rates.

We observed a significant turn in the development of in-patient admission rates after the abolition of budget caps in 2001: decreasing admission rates turned into an internationally exceptional increase of more than 3% per year. Day care admissions had already been rising explosively for two decades, but the pace increased after 2001.

The increase in the number of admissions includes a broad range of patient categories that were not in the first place associated with long waiting times. The growth was attributable for a large part to admissions for observation of the patient and the evaluation of symptoms, not resulting in a definite medical diagnosis.

We considered several factors, other than the availability of more resources, to explain the growth: the ageing of the population, making up for waiting list arrears, ditto for "under consumption" of unplanned care and, as to the growth of day care, substitution for inpatient care. However, these factors were all found to fall short as an explanation. Although waiting times have dropped since the change in the budget system, they continue to be long for several procedures. Our study indicates that making available more resources to admit patients, or otherwise an increase in hospital activity, do not in itself lead to equilibrium between demand and supply because the volume and composition of demand are partly induced by supply.

We conclude that abolishing budget caps to solve waiting list problems is not efficient. Instead of a generic measure, a more focused approach is necessary. We suggest ingredients for such an approach.

1. Introduction

Lasting long waiting times for hospital care are a policy concern in approximately half of all OECD countries [1]. Several of these countries have in the last decades replaced fixed global budgets or block grants for hospitals by reimbursement based on output in order to enhance productivity in hospitals and so bring down waiting lists to

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acceptable levels. This was also the case in the Netherlands in 2001.

Prior to that time, in-patient admission rates in the Netherlands had continued to decrease despite the ageing of the population. This was partly due to capacity and budget constraints, but also a shift to treatment in day or outpatient care played a role, as well as the effects of better prevention [2]. In the same period waiting lists became longer and waiting times went up. In the year 2000 the mean waiting time for, for example, a hip replacement or cataract surgery were 96 respectively 111 days, which was cause for much debate. However, compared to other OECD countries these were still relatively short. Longest waiting times have been reported from Finland and England, where in the same year mean waiting times for the two mentioned procedures were 244 respectively 206 days [3].

In 2001 the budget system for hospitals was drastically revised in order to reduce waiting lists and times. Fixed global budgets were replaced by budgets that were to a large extent volume based and open-ended. Along with this measure allocations for doctor's fees were made dependent on realised hospital production. The government made available additional resources and hospitals were required to publish waiting times on their websites.

After the implementation of this policy measure a significant turn in the development of in-patient admission rates was observed: decreasing admission rates turned into an internationally exceptional increase of more than 3% per year. Day care admissions had already been rising explosively since the nineties, but after 2001 the pace accelerated.

The overhaul of the budgeting system was instigated by a verdict in a legal procedure stating that in a health insurance system patients have an enforceable right to timely care.

It was a measure designed for the short term. The policy agenda of the then government for the longer term remained: enhancing efficiency, affordability and patient centeredness by stimulating competition between insurers and between care suppliers in a new health insurance system. This new insurance system was finally implemented in 2006, together with the stepwise introduction of an activity based, DRG-like, reimbursement system for hospitals starting in 2005.

Long waiting for elective care occurs in particular in countries with a national health service and also in those with compulsory health insurances. In these health care systems patients do not pay the (full) price for the care they receive. In the absence of a price mechanism to regulate demand and supply, which is explicitly rejected, aggregate supply is constrained by a national budget. Suppliers ration demand for non-urgent care by employing waiting lists. In countries where long waiting times are a problem, governments have taken various types of measures, focusing on the supply side (activity based financing, targeted additional funding and waiting time targets), the demand side, or both (like maximum waiting time guarantees) [1,4,5].

The replacement of fixed global budgets by more volume based open-ended budgets in the Netherlands, followed by the introduction of a DRG-like activity based financing model is an example of targeting the supply side. This type of change in the reimbursement system was largely in line with similar initiatives in other developed countries. Thus, in 1983 activity based financing (ABF) for hospitals based on DRGs was introduced in the US (for Medicare) to replace retrospective cost based payment [6]. In the late eighties and the early nineties ABF was introduced to replace global fixed budgets or block grants in Australia, Portugal, Hungary and the Nordic countries, followed by other countries like Germany, France, the UK and the Netherlands [7–12]. At present ABF is the principal means of reimbursement in developed countries [13].

As to the efficacy of ABF, research in Sweden, Norway, Hungary and England indicates that the introduction of this type of financing resulted in higher productivity [8–10,14,15]. In Stockholm (Sweden) waiting list problems were solved within the first two years following the introduction of ABF in 1992 (but reappeared thereafter) [15]. But the reform in the funding of hospitals went along with the introduction of waiting time guarantees [16]. In general it is difficult to establish the isolated effect of ABF because in practice other measures that focus on waiting times took place at the same time.

Following the change of the hospital budgeting system in the Netherlands in 2001, in-patient admission rates have been increasing and still continue to go up. Day care admissions had already been rising explosively for two decades, but even so the pace increased after 2001.

The main question which motivated our research was whether the policy measure introduced in the Netherlands was effective and efficient in reducing waiting times. Our hypothesis was that additional supply, by the provision of more resources, could have had either one or both of two effects: (1) an increase in realised activities, corresponding to an increase in the number of admissions; (2) a lowering of the thresholds for admission.

Other things being equal, an increase in admissions would reduce waiting lists and times. But this effect could be countered by lowering thresholds for admission as a result of an interaction between supply and demand. The latter phenomenon is related to what in the health economic literature is called supply or supplier induced demand [17].

For waiting list related categories, the priority groups, this may result in on the one hand an increase in admission rates, with a downward effect on waiting lists, and on the other hand, lowering thresholds (e.g. lowering visual acuity thresholds for cataract surgery [18]) with an upward effect on waiting lists. So an increase of admission rates can go along with lasting waiting lists.

Also for non-waiting list related categories the additional supply may result in increased admission rates. These activities compete with those for priority groups, resulting in a suboptimal increase of admission rates for priority groups. In this respect, it is of note that in Netherlands it was decided to opt for a generic measure to adapt the budget regime with the argument that otherwise the activities for not-waiting list related categories could be pushed away.

As we focus on the effect of the change in the reimbursement in 2001, it is of importance that up to 2005 there were