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# **Preface**

## Editor-in-chief, Hideki Hashimoto

The editorial committee of the Japanese Journal of Health Economics and Policy is pleased to bring the E3 (English version) to a global audience. This volume includes three papers that deal with one of the most critical yet debate-provoking issues in ageing societies: how to provide a sustainable healthcare system under population ageing. Japan is at the frontline of this demographic change. The national government has announced a new policy for a "community integrated care system," which aims to seamlessly combine primary care, acute care, and long-term care to ensure performance efficiency in terms of improved quality and lower cost. However, empirical evidence to support the design of a suitable administrative framework is limited, as is research on economic incentives for providers and consumers, and the facilitation of social infrastructure. No single country can face this challenge effectively, and multi-country collaboration is required.

Early versions of the papers in this volume were originally presented at an international symposium titled "Managing Integration of Long Term Care for Elderly and Policy Implication", held in Tokyo on September 29th, 2014, by Seijo University as part of its 100th Anniversary project. The symposium concluded a 5-year academic research project on the issue led by Prof. Hiroyuki Kawaguchi at the School of Economics, Seijo University, with financial support from the Ministry of Education, Culture, Sports, Science, and Technology (Grant-in-Aid for Scientific Research (A) #23243039).

The first paper, presented by Prof. Kawaguchi and Prof. Peter Smith, focused on "the role of primary health care in incentivizing policy outcomes" to extract lessons from the UK experience. The paper empirically evaluated two policies which aimed to provide incentives to improving system efficiency: fundholding budgets and pay-forperformance in the UK primary care. The authors argued that primary care is a promising means of ensuring system sustainability in an ageing society, although they also concluded that the design of financial incentives should be done with caution, and that further empirical evidence is required.

The second paper, "Kotitori: the service integrator model for home care" by Prof. Lillrank from Aolto University, Finland, provided the theoretical framework for a community-integrated system to sustain homecare, as well as a case analysis of the Kotitori experiment conducted in Tempere, Finland. Koti means "home" and Tori means "market" in Finnish. The framework of Kotitori represents a unique governance structure - called a "Vendor Management Organization" - which links public principal and private providers so that they can serve local patients in an efficient and coherent manner. The paper argued that the Kotitori experiment represented a promising case of administrative and organizational innovation aimed at achieving the integration of care in the community.

The last paper was "Long-term care in the Netherlands: towards managed competition?" by Prof. van Kleef from Erasmus University Rotterdam, with Prof. Kawaguchi as a co-author. The Netherlands government first introduced managed competition into the health insurance scheme in 2006. The paper focused on the further question of whether managed competition is applicable to long-term care. The paper found that a managed care scheme did succeed in slowing healthcare spending growth in acute care, but only under the preconditions of risk-equalization and information transparency to aid consumers' choice. The paper concluded that it is less likely that long-term care could meet the conditions, and that careful discussion and assessment are necessary to avoid cost containment at the cost of quality.

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We hope that these three papers in this volume will provide a firm platform on which a wider range of scholars and policy makers can explore the integration of healthcare to meet the needs of an ageing society. Finally, the editorial board expresses its sincere appreciation to Chancellor and Prof. Yuji Yui of Seijo Gakuen School for his generosity in allow these papers to be shared in this volume. We extend our acknowledgement to researchers that joined the symposium for their useful comments; Prof. Eiji Tajika, Dr. Jun Kikuchi, Prof. Masako Ii, Prof. Michiko Moriyama, and Prof. Hiroya Ogata. We also express our deepest appreciation to Prof. Kawaguchi for his considerable time and effort in preparing these papers for publication.

# The role of primary health care in incentivizing policy outcomes: lessons from the U.K. experience

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#### Abstract

This paper discuss the role of primary health care in the health care system. We look at the role of primary care, in particular its role in disease management for chronic disease, which is the major concern for older people. Then we look at two incentivizing policies that have been tried in the UK for improving system efficiency in terms of cost containment and quality improvement. The first policy is the "Fundholding budgets for general practice"; the second is the "Pay-for-Performance in primary care". This paper concludes that the development of primary care is a policy area well worth considering as a means of sustaining the healthcare system challenged by population ageing and economic resource limitation, but with cautions about the pitfalls that can arise in this area.

[Key words] primary care, disease management, fundholding, pay for performance, the UK

### 1. Introduction

Population ageing and increasing demand for care for older people has become an important policy issue in the UK, Japan, and other developed countries (Curry, Holder, and Patterson, 2013)<sup>1</sup>), though none of nations or systems have any complete answers to this problem. Among potential options, the role of primary care and its possible future reforms could be a key to improving the quality of care for older people, while controlling the costs of that care (Beales and Smith, 2012)<sup>2</sup>). Although primary care would not be a complete solution to the problem, there are some elements of primary care that may be very useful and effective for every health system. There are also elements of primary care, certainly as it is practiced in the UK, that could provide resources from which we could draw policy lessons to strengthen healthcare systems and address their weaknesses.

This paper discuss the role of primary care in healthcare system and its incentivizing policy outcomes. In the first section, we look at the surrounding environment of primary care. We discuss primary care, in particular its role in disease management for chronic disease, which is the major concern for older people in section 2. Section 3 addresses the role that incentives play in the way that primary care functions. Then we look at two policies that have been tried in the UK for improving system efficiency, which may have relevance to any health system. The first policy is the "Fundholding budgets for general practice"; the second is the "Pay-for-Performance in primary care". The paper concludes that the development of primary care is a policy area well worth considering as a means of sustaining the healthcare system challenged by population ageing and economic resource limitation, but with cautions about the pitfalls that can arise in this area.

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### 2. Primary care and general practitioners in the UK, and their roles

In the UK, primary care has played a central role in the health system that has evolved since the creation of the National Health Service in 1948. Most general practices are small independent businesses with a contract from the public payer (the National Health Service). They are funded with a mix of fixed capitation payments per head of the population that is registered them and some additional fee-for-service payments, including performance-related rewards, which account for about 20% of their income (Smith and York, 2004)<sup>3)</sup>.

Primary care has both a fundamental role and a potential role. As a fundamental role, primary care practices coordinate the care of individuals, through monitoring, promoting health, preventing disease, and prescribing medication. As in most systems where primary care plays a leading role, primary care physicians act as gatekeepers to secondary care.

Moreover primary care physicians in England are increasingly taking a fundamental role in organizing the local health care services, such as hospital services. They have control of local budgets for much of the health system. As a potential role, there are arguments that primary care can improve efficiency in the healthcare system, and control costs. In addition, many primary care organizations do minor specialist treatments, which reduces the burden on hospitals.

One fundamental role of general practitioners (GPs) is disease management. "Disease management" is a rather vague term. In this paper, it can be described as monitoring a chronic disease to ensure that it is under control, and that any requirements of the patients are met, and also to prevent unnecessary use of secondary care. It is intended to improve the health of the individual patients with chronic conditions and reduce unnecessary specialist costs.



\* : Test results/records not available at time of appointment, received conflicting information from different health professionals, and/or doctors ordered test that had already been done.

Figure 1. Coordination Problems\* in the Past Two Years, by Number of Chronic Conditions

Figure 1 shows results from a survey undertaken by the Commonwealth Fund (Schoen and Osborn, 2010)<sup>4</sup>) every three years of ordinary citizens in eleven countries. The survey asks people about problems they have experienced in the coordination of their care over the last two years. The left bar in each country shows patients with no chronic disease, and the problems they have had with coordination of care processes. There is quite a lot of variation between countries. However, the countries that have well-developed primary care like the UK tend to get better results in this domain than other countries. The US, as in so many respects, is an outlier. However, for patients with two or more chronic conditions, the results are not so good for the UK or indeed for most countries. Overall, one-third of people with chronic diseases feel there are coordination problems.

The second issue is unnecessary use of secondary care. We have some data on this from the OECD Health Statistics 2014<sup>5</sup> for three chronic diseases: asthma, COPD (Chronic obstructive pulmonary disease), and diabetes. Theoretically, much hospitalization for these conditions is avoidable if the disease management in primary care is of adequate quality. Thus, the number of admissions for these chronic conditions in OECD countries could be a rough index of primary care quality.

Figure 2 shows all hospital admissions with a principal diagnosis code of asthma. Japan is ranked towards the bottom. Countries such as Korea have a particularly high rate of hospitalization for asthma.



Source: OECD Health Statistics 2014





Chronic obstructive pulmonary disease (COPD)

All hospital admissions with a principal diagnosis code of COPD (excluding day cases)

Figure 3. All hospital admissions with a principal diagnosis code of COPD

Source: OECD Health Statistics 2014

For chronic obstructive pulmonary disease (COPD), Japan has an exceptionally low rate within the developed world. Given higher prevalence of smoking among Japanese males, however, it may be because of statistical artifact of patient survey records, disease epidemiology, or the care processes of this disease unique to the Japanese.



Figure 4. All hospital admissions with a principal diagnosis code of diabetes



Source: OECD Health Statistics 2014 and International Diabetes Federation 2014

Figure 5. Scatter diagram of prevalence and adult hospital admission rates of diabetes

At the other end of the spectrum is diabetes, where it appears from the data that Japan has particularly high levels of admissions (Figure 4). On the other hand, Figure 5 shows that it is not the prevalence of diabetes in Japan that is driving admissions rates high. Japan actually has quite low prevalence compared to most countries, but it has as high an admission rate as in Austria, which has a very hospital-dominated health system. This may be caused by the unique form of hospitalization known as "educational hospitalization" which is a hospitalization for diabetes patients to train patients in appropriate diet and medication. This demonstrates that this sort of data is very interesting, and useful, but has to be viewed very carefully.

Dusheiko et al (2011)<sup>6</sup> examine whether disease management in primary care actually does reduce costs or improve patients' health, using the data collected for a policy on incentives of performance in ten chronic conditions (asthma; chronic heart disease; chronic kidney disease; COPD; dementia; diabetes; hypertension; hypothyroidism; mental health; and stroke).

The paper found that high levels of performance in managing certain chronic diseases do not seem to improve health of people at least in the short term. However, what it did find was that disease management of people who have had a stroke had a very distinct impact. Good disease management of stroke patients is associated with reduced future mortality, and reduced future care costs. The improvements over a period of five years in stroke care in the UK have saved about 7,000 deaths per annum, and has reduced 0.2% of all hospital costs, which is not negligible. In general, it is hard to measure the observable impact of primary care on hospital costs, and more research is needed to identify reliably the impact of quality of primary care on health outcomes.

## 3. Two kinds of incentives in primary care

Incentives play a big part in how the primary care system works. There are two types of incentives; indirect and direct.

It is important to note that patients can choose which GP they register with. There is therefore some competition between general practices. The indirect incentives arise from that competition, and to some extent through formal performance reporting mechanisms. Moreover, informal reputation is also become an important element of indirect incentives, for example through the NHS website *NHSChoices*. Rather like *TripAdvisor*, this allows patients to post their views on their GP practice. Direct incentives are provided through payment, in the form of the nationally agreed contract for services, a mixture of capitation, fee for service and pay for performance.

|  | Gatekeeping system              |   |                                 |   |  |
|--|---------------------------------|---|---------------------------------|---|--|
|  |                                 | Primary care physicians referral to access secondary care                         |                                 |   |  |
|  |                                 | Required  | Incentives                      | No requirement, no<br>incentive                               |  |
| Are patients<br>required or<br>encouraged to<br>register with a<br>primary care<br>physician?<br>No requiremento<br>no incentive | Required                        | Denmark, Finland,<br>Ireland, Italy,<br>Netherlands, Portugal,<br>Slovenia, Spain |                                 | Czech Republic  |  |
|  | Incentives                      | Australia, New Zealand,<br>Norway, Poland,  | Belgium, France,<br>Switzerland |   |  |
|  | No requirement,<br>no incentive | Canada, Chile, United<br>Kingdom  | Mexico                          | Austria, Germany,<br>Greece, Iceland, Israel,<br>Japan, Korea |  |

Table 1. Gatekeeping system in the OECD countries

Source: http://www.oecd.org/els/health-systems/organisation-health-care-delivery.htm

### 4. Two primary care policies aimed at improving health system efficiency

GP gatekeeping is a central feature of the UK NHS, in the sense that patients cannot obtain access to nonemergency specialist care without a formal referral from their GP. The gate keeping role in the UK is actually an extreme form of the policy. The OECD has done a survey on gate-keeping across the developed countries (Table1). The horizontal axis indicates whether primary care physicians are required to make a referral for secondary care. For the majority of countries, in Denmark, Finland, Ireland, Italy, Netherlands, Portugal, Slovenia, Spain, Australia, New Zealand, Norway, Poland, Canada, Chile, United Kingdom, there is that *gatekeeping* requirement.

Japan has no gatekeeping to secondary care, and there are some countries in the middle, Belgium, France, Switzerland, and Mexico with some gatekeeping incentives. In France, for example, one has to pay extra if one goes to a specialist without getting a referral from a primary care gatekeeper.

The vertical axis indicates whether patients are required to register with a primary care physician. That is less relevant to this particular subject.

### (1) Fundholding budgets for general practice

There have been two policies aimed at primary care that have sought to improve efficiency in the area of chronic disease and care of the elderly. The first was known as *fundholding*, implemented in 1991. Those GPs who chose to participate were given an annual budget with which they were expected to look after their patients' routine secondary care and prescribing needs. The findholding budget included routine ('chargeable') non-emergency surgery (about 37% of all hospital episodes) and excluded both 'non-chargeable' elective procedures (more complex, about 16% of all episodes) and emergency admissions (about 46% of episodes).

The general practice could retain any surplus on the fundholding budget, not for their personal wealth or income, but for investing in patient services. They could use the savings to provide a new service for their patients, and make their practice more attractive in some way.



source: Dusheiko, et al (2006) p470 Figure2

Figure 6. Differences between fundholder and non-fundholder admission rates for chargable, non-chargeable and emergency admissions

It is also important to note that the penalties for overspending were quite weak. The worst that could happen to a fundholder was that they would have authorization removed, and had to withdraw from the fundholding scheme. They therefore did not actually have a great deal of personal money at stake.

Fundholding was started in 1991, and abolished in 1998. Very importantly, GPs' participation to the fundholding system was voluntary. In the end, about 50% of patients were covered by a fundholder by 1998. The abolition of fundholding in 1998 therefore provided an interesting natural experiment to examine the implications of abandoning a policy. Dusheiko et al (2006)<sup>7</sup> looked at GP referrals to hospital services two years either side of abolition. The paper used difference-in-difference econometrics techniques to adjust for the effects of extraneous factors and selection bias. The results show that fundholders made 4.9% less use of the relevant non-emergency hospital treatments than their non-fundholding counterparts, a difference that quickly disappeared after abolition. There was therefore quite a large impact on secondary care caused by fundholding.

In figure 6, there are the two years (1997/98 and 1998/99) before abolition of the fundholding. The second (nonchargeable admission) and third (chargeable admission) lines from the top are the proportionate rate difference between fundholders and non-fundholders relative to the first flat line from the top. This form of voluntary gatekeeper budget-holding thus secured annual savings of 0.6% of all hospital expenditure, with very modest incentives. When the fundholding was abolished, in the first year (1999/00), the fundholders started approaching all the other general practices. And in the second year (2000/01), they had got very close to the non-fundholders. Therefore, there was a very distinct impact when the policy was abolished.

We could find no evidence that fundholder patients had poorer health. There was an interesting finding that they actually seemed to be less satisfied with their doctors than non-fundholding patients. There may be an issue that patients may think that their doctor is concerned about the budget as well as their health, and this is a consideration for any policy-makers considering primary care budget-holding.

### (2) Pay-for-performance in primary care (Quality and Outcomes Framework)

The second initiative in UK general practice is based on Pay-for-Performance. This is the notion of paying physicians a reward for securing improved quality<sup>2</sup>. Cashin et al (2014)<sup>8</sup> report 16 case studies from across high-income countries for paying for performance, in both primary and secondary care.

There are big questions about what should be rewarded when using pay for performance. Most basically, it could be based on the *structure* of care, or having certain requirements in place, considered necessary to provide quality services<sup>3</sup>. The next level is concerned with the *processes* of care; do the providers adhere to certain guidelines, which are expected to lead to better outcomes. Finally, should we reward the *outcomes* of care in terms of better health? It turns out that these outcomes are often very difficult to measure, and may take a long time to materialize. Also, they are vulnerable to influence beyond the control of the healthcare provider.

Cashin et al (2014)<sup>8)</sup> found that most systems in operation reward the processes of care. It is important that those processes should be known to be related, eventually, to good outcomes. Table 2 shows the OECD countries that are using pay-for-performance, in primary care, specialist care, and hospitals. Those countries that are using pay-for-performance do so mainly in primary care. There are some schemes in specialist care, and some in hospitals. And the Japan line is empty.

Cashin et al (2014)<sup>8)</sup> also show some examples of pay for performance. France has *Contracts for Improved Individual Practice* for primary care physicians in prevention, chronic disease management, and prescribing. Germany has an interesting *Disease Management Program* uniquely designed and contracted by each Sickness Fund, or a public insurer. These programs resulted in improvement of certain aspects of primary care and subsequent outcomes (e.g. diabetes management), though the effect was not observed equally across disease conditions. In the UK, the *Quality and Outcomes Framework* (QOF) has been introduced, as follows.

In brief, QOF tries to incentivize actions associated with high quality care, and reduce the need for specialist care. It was first implemented in 2004 and is still in operation. It measures about 150 performance indicators in primary care, and up to 20% of primary care practices' income is determined by their performance. Although the

| Country         | Primary care | Specialist care | Hospitals |   |
|-----------------|--------------|-----------------|-----------|---|
| Australia       | Х            |                 | Х         | - |
| Austria         |              |                 |           |   |
| Belgium         | X            |                 |           |   |
| Canada          |              |                 |           |   |
| Chile           | Х            | Х               |           |   |
| Czech Republic  | X            |                 |           |   |
| Denmark         |              |                 |           |   |
| Estonia         |              |                 |           |   |
| Finland         |              |                 |           |   |
| France          | X            | Х               | Х         |   |
| Germany         | Х            |                 |           |   |
| Greece          |              |                 |           |   |
| Iceland         |              |                 |           |   |
| Ireland         |              |                 |           |   |
| Israel          |              |                 |           |   |
| Italy           |              |                 |           |   |
| Japan           |              |                 |           |   |
| Korea           | Х            | Х               | Х         |   |
| Luxembourg      | Х            |                 |           |   |
| Mexico          | X            |                 |           |   |
| Netherlands     | Х            | Х               | Х         |   |
| New Zealand     | Х            |                 |           |   |
| Norway          |              |                 |           |   |
| Poland          | Х            |                 |           |   |
| Portugal        | Х            |                 | Х         |   |
| Slovak Republic |              |                 |           |   |
| Slovenia        |              |                 |           |   |
| Spain           | Х            | Х               | Х         |   |
| Sweden          | Х            |                 | Х         |   |
| Switzerland     |              |                 |           |   |
| Turkey          | Х            |                 | Х         |   |
| UK              | Х            | Х               | Х         |   |
| US              | Х            | Х               | X         |   |

Table 2. P4P programs and measures in OECD countries

Source: Cashin et al (2014) Page 11 Table 1.3

Table 3. Indicators and points at risk in QOF

| Area of practice                       | PIs | Points |
|--|-----|--------|
| Clinical                               | 76  | 550    |
| Organizational                         | 56  | 184    |
| Additional services                    | 10  | 36     |
| Patient experience                     | 4   | 100    |
| Holistic care (balanced clinical care) | _   | 100    |
| Quality payments (balanced quality)    | _   | 30     |
| Access bonus                           | -   | 50     |
| Maximum                                | 146 | 1050   |

source: Author

program was voluntary, virtually all of GPs participated in this new program. Thus, it was quite difficult to precisely evaluate the impact of QOF because there was no control group.

What is the shape of this scheme? QOF involved exactly 146 performance indicators across a variety of areas (Table 3). Area of clinical practice had 76 performance indicators and areas of the organization had 56 performance indicators. Then there were points in each area. In the clinical practice area, there were 550 points. The maximum point score in QOF was 1050 points and it determined the bonus of GPs. This is the original style of QOF. It has

| Domain                               | PIs | Points |
|--------------------------------------|-----|--------|
| CHD including LVD etc                | 15  | 121    |
| Stroke or transient ischaemic attack | 10  | 31     |
| Cancer                               | 2   | 12     |
| Hypothyroidism                       | 2   | 8      |
| Diabetes                             | 18  | 99     |
| Hypertension                         | 5   | 105    |
| Mental health                        | 5   | 41     |
| Asthma                               | 7   | 72     |
| COPD                                 | 8   | 45     |
| Epilepsy                             | 4   | 16     |
| Clinical maximum                     | 76  | 550    |

note: CHD; Coronary heart disease, LVD; left ventricular dysfunction source: Author

changed a little recently, however the structure is still the same.

These are some details of the clinical practice area in Table 4. In each domain of chronic disease, there were a number of performance indicators. In terms of mental health, one of the biggest parts of expenditure in the UK, there were originally only 5 indicators and 41 points for the domain, although a typical GP might devote about one-third of their time on aspects relating to mental health. In contrast to mental health, the hypertension domain had 5 indicators, but there were 105 points at stake.

Table 5 and Figure 7 show how the achievement score is calculated taking the hypertensive case as an example. A primary care practice gets nine QOF points just for maintaining a register of patients with hypertension. BP5 is defined as "percentage of patients with hypertension whose last blood pressure reading (in past 9 months) was 150/90 or less". There are 56 points at risk in BP5, and a practice secures all of those 56 points if 70% of registered hypertensive patients has blood pressure under control. If a practice has 55% of registered patients successfully controlled then it receives 39.2 points.

The average points score in each year since it was established has been very high (Table 6), suggesting that thresholds may have been set at too easy a level. In the early years, there were improvements in all of the clinical areas. Figure 8 indicates a selection of six of the performance indicators (Cox et al, 2007)<sup>9</sup>). The BP5 is the fourth line from the top on Figure 8 and was improving since the measurement started. The improvement continued after QOF was introduced in 2004. Note, all of the performance levels were improving even before QOF was introduced. A large part of this may have been due to computerization, because, to participate in QOF, every general practice needed to have the necessary information technology to record and report performance levels.

GP earnings took a big jump in the year QOF was implemented, in 2004 (Figure 9). The income is 20 million yen, 100 000 pounds, or 120 000 Euros. However, that income has not risen substantially since the introduction of QOF, and has even declined in some years.

As noted above, quality was improving before QOF was introduced. It may have led to further improvements, though these improvements have probably been quite modest. However, there have been some important sidebenefits we should note. Amongst these, the computerization of general practice has created better information flow.

In addition, patients are better informed about the quality of their primary care physicians. It has been a very interesting experiment to involve GPs in asking them what they are trying to do, and what is important in their practices. The involvement of GPs has been very important. We now have a more informed debate on what we think primary care should be doing. This has been quite an important and interesting experiment, but whether

|   | Minimum percent<br>score below which<br>no points earned | Maximum percent<br>score above which no<br>further points earned | Total points<br>at risk |
|---|--|--|-------------------------|
| Clinical records<br>BP 1. Practice can produce a register of<br>patients with established hypertension  | NA   | NA   | 9                       |
| Diagnosis and initial management<br>BP 2. Percentage of patients with<br>hypertension whose notes record<br>smoking status at least once<br>BP 3. Percentage of patients with<br>hypertension who smoke, whose<br>notes contain a record that smoking<br>cessation advice has been offered<br>at least once | 25   | 90<br>90   | 10                      |
| Ongoing management<br>BP 4. Percentage of patients with<br>hypertension for whom there is a<br>record of the blood pressure in past<br>9 months<br>BP 5. Percentage of patients with<br>hypertension whose last blood<br>pressure reading (in past 9 months)  | 25   | 90   | 20                      |
| was 150/ 50 01 less   | 20   | 10   | 50                      |

Table 5. Performance indicators, scale and points at risk in hypertensions domain

source: Smith and York (2004) p115 EXHIBIT1



source: Author

Figure 7. Threshold of Indicator BP5

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|  | 2004<br>/05 | 2005<br>/06 | 2006<br>/07 | 2007<br>/08 | 2008<br>/09 | 2009<br>/10 | 2010<br>/11 | 2011<br>/12 | 2012<br>/13 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Average points<br>score (%)              | 91.3        | 96.2        | 95.5        | 96.8        | 95.4        | 93.7        | 94.7        | 96.9        | 96.1        |
| Practices<br>achieving full<br>marks (%) | 2.6         | 9.7         | 5.1         | 7.5         | 2.0         | 1.0         | 1.3         | 2.4         | 3.7         |

Table 6. Average points score of QOF in England

source: NHS Information Centre http://www.qof.ic.nhs.uk/



note: CHD; Coronary Heard Disease, STROKE; stroke, HP; Hypertension source: Beales and Smith (2012) P176 Figure 1





note: converted '000 JPY; constant 2012 prices source: Author

Figure 9. Trends in real GP earnings 1999-2013

spending 20% of earnings on securing the QOF achievements is questionable.

Pay for performance will become more important in health systems. We have yet not seen too many schemes producing major changes, however, because policy makers are still experimenting, and still feeling their way. In fact, in contrast to the UK scheme, most schemes internationally are underpowered. We must be patient, but this is the way health systems will pay providers in the future.

### **5.** Conclusion

Primary care is a potentially very important part of all health systems. However, primary care is highly variable both between and within systems. In the UK, the best primary care is excellent, but there is also some very poor primary care in the same system.

Primary care does offer a big scope for securing cost control and quality improvement. However, probably because of the big variability between practices, the evidence has been inconclusive. We need better experiments. Policy makers should be much better at introducing experiments so that they can be evaluated properly. We waste a huge amount of effort and time in the UK because there are big reforms in the health system, but it is almost impossible to evaluate them properly. Academics should be involved in the design of reforms so that we can evaluate them better in the future. It is interesting that one of our strongest evaluations was when fundholding was abolished, opening up an evaluation opportunity.

For success in the primary care area, the following things are essential. First, payment mechanisms must be aligned with what you are trying to achieve. Too often, we see the payment mechanisms and objectives are misaligned. We have got to have the information resources available, on performance and many other factors. We also must have good audit. What we found is that in the past there has been mistrust of evidence, that was provided, and that can be very damaging for both the professionals in the system and the patients as well. We do need good quality information. We need high-quality governance of the system to ensure that what is required is carried out properly. The experience in the U.K. about primary care has definitely indicated that we need good clinical leaders. Without those clinical leaders – particularly the doctors – we cannot make this work. Finally, we must monitor and evaluate the system so we know what is working and what is not working. Then we can make revisions and adjustments in the future.

In conclusion, the development of primary care is a policy area well worth considering, but it has to be done carefully and there are pitfalls that can arise in this area. However, there is a growing body of evidence and expertise, in Japan and internationally, to help refine policy and make sure the best practice is emulated, and the worst pitfalls avoided.

### Acknowledgment

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### Footnotes

- 1 It is unfortunate that Japan does not join in this survey at the moment. However, it will in the future because it is a very useful "snapshot" of health systems, and what people think of those health systems.
- 2 It is rather strange that we should think this is revolutionary. In fact, there is a possibly apocryphal story that the Chinese first invented this type of reward. There are Chinese villages only paid their physicians while they stayed healthy. If the villagers became sick, then they stopped paying their physicians. This is an early form of pay-for-performance.
- 3 This is actually a big issue in low-income countries. Their first concern is to make sure the clinicians turn up for work.

The first aspect of performance is to have the workers in place, and to reward attendance.

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# **Kotitori: The Service Integrator Model for Home Care**

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### Abstract

One of the drivers on the cost inflation in modern health and welfare systems is ageing. It is amplified by the fragmentation of care into narrow specialties that while failing to cater to whole-person needs also increase costs. To counteract these trends, elderly care needs to move from institutional to home care. This, however, requires service integration at the patient level. Service production systems need to be constructed with this end in mind. This article describes an experiment, Kotitori, undertaken in the city of Tampere, Finland. The model combines the functions of vendor management allowing the city to efficiently contract with several small-scale service producers, and patient-level case management.

[Key words] Care integration, vendor management organization (VMO), service machines, service systems, outsourcing.

## 1. Introduction

In modern societies the care of old and frail people has changed from being an expression of family's respect to their senior members into a professional service. Responsibilities are shifting from informal families to formal service production systems that operate within a market economy under public regulation. As the scope and volume of care services have increased, managers have increasingly adopted various management techniques, most of which developed originally within manufacturing industries. However, modification of these techniques was imperative to meet distinctive characteristics of health service compared to manufacturing industry. This has led to the development of Healthcare Operations Management (HOM) (Johnston and Clark 2005, Vissers and Beech 2005).

This paper aimed at offering a theoretical and conceptual basis of service production systems, specifically focusing on healthcare service area. The first section provides a historical view of how the meaning of service has changed. Second, the concepts "Service Machines" and "Service Motors" are introduced to differentiate the actual production and its contractual governance framework. Third, the Vendor Management Organization (VMO) is described as a tool to facilitate contracting between public and private organizations. Fourth, a case study of Kotitori in Finland is presented to illustrate the benefits and challenges of a VMO. In the final section, an evolutionary model of Service Machines with VMO as a system integrator is proposed and its benefits and limitations are discussed.

### 2. Historical evolution of "logic of service"

During the early phases of the Industrial Revolution, services were not paid much attention. At the time of Adam Smith, services were not recognized as proper economic activity, as they did not produce anything tangible,

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and production was undertaken within traditional social relationships, such as the master and the domestic servant. (Grönroos 2000).

In the post-WWII era, services grew to share more than half of the GNP in advanced societies, and that stimulated the emergence of "service marketing" concept. Services may not have a physical form that "you can drop on your foot", but they can be sold, bought, priced, evaluated, and managed. The standard definition of service was solidified in the IHIP model: services are Immaterial, Heterogeneous, Inseparable, and Perishable forms of economic activity (Fitzsimmons and Fitzsimmons 2006). However, since there obviously is a large spectrum of services, from housecleaning to legal advice, the definition still suffered many inconsistencies and contradictions (Lovelock and Gummesson 2004).

A decade ago, a new line of idea emerged. Compared to traditional tangible-product based marketing where the customers are a recipient of goods (Goods-centered dominant logic; GDL), a new type of marketing should regard services as co-creation of value (Service-centered dominant logic; SDL), and customers as a co-producer of service, actively participating in production of services in person, or through their property and/or information about them (Vargo and Lush 2004, Sampson and Froehle 2006).

More recently the IHIP and the SDL models have been further integrated into the Resource Integration Model (Moeller 2010). Co-creation means that the producer's and the customer's resources are integrated to produce value. The service contract is Immaterial, as services can be sold only as contractual promises of some future action. Heterogeneity is applied to customer resources, as individuals have varying needs and requests. Production is a process where both parties participate and are for a time inseparable. Finally, producer's resources are perishable; capacity left unused without a customer request cannot be stored for later use.

### 3. Service Machines and Service Motors

Service production systems have to deal with constraints not usual in manufacturing. As services are cocreated, producers must develop ways and methods to engage with customers; manage their demand to optimally fit available production capacity; build robustness to suit customer's heterogeneity; and understand quality primarily as a measure of how well producers succeed in keeping the promises made to customers. Healthcare adds further constraints such as information asymmetry, urgency, varying patient preferences and capabilities to participate in their own care.

Heath services, including the care of elderly, can be seen as "Service Machines" that need to be designed and managed. A machine, by definition, is a system consisting of several interlinked parts. Systems in general can be the result of evolution; machines, however, are artifacts, the result of purposeful action aiming at defined results (Lillrank and Särkkä, 2012).

Service Machine is a metaphor that helps clarify some non-obvious properties of service production. Machines, such as laptop computer, have processors, displays, input-output devices, power sources, wires, and frames to where the parts are connected. Factories have a physical representation that is visible, even when the lines stop and the workers go home. Many services do not have such obvious visual form. Office workers sit at their desks, process information and communicate with others. Home care workers assemble in the morning at their office then to fan out to do their work at customer's accommodations. When the day is done, connections are closed, files are put away and the Service Machine disappears, to be reactivated again next morning.

Like a physical machine, a Service Machine is designed from a number of parts. There are "Service Motors" that directly co-create value by engaging with patients, such as a nurse giving physiotherapy to a patient. There are processors, such as office routines by which requests are processed and turned into scheduled tasks. There are energy inputs in the form of financial and supply flows, control mechanisms in the form of performance evaluation, customer feedback and continuous improvement.

A Service Machine has a frame that connects the parts. It is made out of contracts and conventions. A Service Machine thus is a social construct that, like social institutions, can reproduce itself every day in a predictable way.

Services such as home care are performed by numerous Service Motors (e.g. caregivers and customers)

interacting in many ways in many locations. They, however, are part of a Service Machine that directs the work and sets the rules of engagement. The question is, how should such Service Machines be designed to capture the essential requirements and objectives within given social, technical and economic constraints?

### 4. Service Machines as governance

Governance is a set of meta-rules that define a frame according to which contracts are made, observed, interpreted, and enforced (Heide 1994, Williamson 2002). Contracts may come in different levels of intensity, e.g. written agreements in legal documents, instructions and orders issued by management in lieu of administrative fiat, professional norms upheld by professional circles, or informal ones ingrained in customs (Willcocks and Lacity, 2006).

Many services have evolved over generations and years, are likely produced within larger organizations where boundaries are not clear-cut and communication often relies on person-to-person informal relationships. Therefore their contractual structure may not be easily visualized.

The governance structure of services, however becomes highly visible when services are outsourced (Domberger 1998). A service, such as payroll management, that previously operated inside a company is assigned to a service producer, often at an offshore location connected by a high-speed network. As the task is given to an outsider, the objectives, procedures, quality and delivery requirements must be spelled out clearly. The contract must specify price and include rules for handling claims and how to eventually terminate the relationship.

Offshore outsourcing of administrative services, software programming, and network monitoring has been initiated for various reasons. The most obvious is the attempt to utilize cheaper labor in countries such as India or The Philippines. Some services will take advantage of different time zones; a radiologist working normal hours in Australia can cover the night shift in Sweden for the diagnosis of x-ray images. In medium-skilled tasks, such as coding or call centers, populous low-medium income countries can offer higher quality labor than what is available in rich countries.

These advantages have, however, frequently been hampered by management difficulties (Pai and Basu, 2007). An in-house service can be designed with many loose ends left hanging. Since the user of the service is located near by, glitches can be corrected and misunderstandings can be straightened out by direct personal communication. In outsourcing, communication between the principal and the offshore agent in a different culture and linguistic area is more complex than what it seems. For an outsourced Service Machine to be operable by remote control, its governance structure and ensuing details must be made crystal clear and failure proof (Eisenhardt 1989).

Since the management of the remote control takes some specialized expertise, a new type of professional service has emerged. A vendor management organization (VMO) is a specialist that manages outsourcing. It defines the principals' needs and requirements and translates them into a contractual arrangement expressed in a language the service-performing agent can understand and then monitors the service provider on behalf of the principal.

In the next section, I will provide a case study of how outsourced Service Machine with VMO works.

### 5. Outsourcing of elderly care in Finnish public sector; background

Finland has a very high rate of institutionalized care for the elderly. According to the Statistics Finland mortality figures for 2015, there were about 34 000 deaths of over 75 years old. The institutional care capacity per death is 2,21 years (https://www.thl.fi/en/web/thlfi-en/statistics/statistics-by-topic/social-services-older-people/institutional-care-and-housing-services-in-social-care). The corresponding figure for Sweden is 1,36 years. According to the WHO Hospital Mortality Base 2015, in Finland there were 217 hospital days for dementia per 1 000 population, while for Sweden the corresponding figure was 4 (http://data.euro.who.int/hmdb/index.php).

There are historical and institutional reasons. Rapid urbanization resulted in an increased number of older people living alone. Moreover, current municipal health centers were originated from district hospitals that used

to accept elderly people who had difficulties to otherwise find a place to live in community. Institutional care, keeping patients in a bed for their last months or even years, is a costly way to produce poor quality of life. There is now an urgent financial pressure to move from institutional to home care.

The Service Machine of home care requires an assortment of tasks: nursing, medication, assistance with basic needs, and housekeeping. A traditional model would be that the municipality provides the service, financed by tax revenue, and manages the service as a part of the municipal organization. However, this traditional "public" model typically results in high cost and low quality. It is reported that in some major cities, only up to 46% percent of labor hours are spent with patient care, and the rest was used for transport and administrative work (Groop 2012). Further, since the municipality employs the service staff the bureaucratic organization often hinders capacity adjustment and innovations. The high unionization rate and militancy among public domain employees challenge management leadership. In such cases, outsourcing is sometime adopted to bypass the administrative rigidity of public organizations.

Outsourcing of homecare provision service to private producers is a viable alternative (Groop 2012). Private home care industry is evolving rapidly, and operators such as multinational franchises and domestic firms have grown fast by acquiring small local and regional care companies. Some of the multinationals, however, have a reputation as tax evaders. There is a widespread fear among policy-makers that large service providers will monopolize local markets, increase prices, and lower quality. Thus, outsourcing public services to private providers may become more politically acceptable if the providers are small local companies, or micro-entrepreneurs, typically experienced nurses, who would run a company of a few professional, committing to a specific area and customers in a long term.

A model based on small-sized local producers has its problem. Finnish law mandates an open tendering process when a public entity purchases from a private provider. The complexity of such bids is sometimes beyond the administrative capacity of small-sized local companies. The relevant service requirements and selection criteria, including weighted ratios of price, quality, manpower, and qualifications, must be made explicit for all potential bidders. Due to the complexity of the issues, many decisions can be contested. Lengthy legal processes hurt the municipality as well as the customers and have become a common nuisance to the extent that the law of public procurement is up for review. If a municipality would want to use small nurse-led companies to cover the service needs, they would have to do hundreds of separate tendering, selection and contracting procedures, and keep a watchful eye on how the providers meet the requirements.

Facing such challenges, municipalities need an alternative model of governance to build home care Service Machines. This was the very motivation for Kotitori model of which details are described in the next section.

### 6. Kotitori as a Service Machine

Kotitori is a service system for elderly care operating in the city of Tampere, Finland. Tampere is the third largest city in the country with about 225 000 inhabitants, located 170 km to northwest from the capital city Helsinki. In the Finnish language "koti" means home and "tori" means a market square. Kotitori is a marketplace where people can shop for health/welfare services used at home (Tynkkynen et al 2012).

The basic idea of Kotitori is that the municipal government bids a tender not for care production, but for VMO services. One private company is selected as a VMO to work as an agent for the City authority to contract with service producers. Since there is no legal mandate for procurement in private sectors, this company can make business contracts with any private company.

In 2009the Kotitori contract was given to a consortium made of Mawell Care, a medium-sized company specializing in IT-systems and home care, and the Nordic Healthcare Group (NHG), a specialized consultancy. Mawell produces some of the care services and the supporting IT system and its maintenance. NHG provides administrative support in tendering and contracting, and analytics for monitoring and continuous improvement. The basic model from the perspective of the user is illustrated in Figure 1.



Figure 1. The Kotitori Service Machine

The City of Tampere has the overall responsibility according to law to provide care to elderly people. The City and the Kotitori consortium make a contract that defines the tasks, sets the criteria of who get paid for what kind of service, and determines the rules according to which care plans are designed and service levels are determined.

Kotitori is a VMO that manages the relationship between the City as a regulator and a payer and service providers. In addition, Kotitori serves as an integrator for patients. Kotitori has a customer service office, a phone number, and a web portal through which end users approach it. A Case Manager will look into each patient situation, perform a needs assessment, and suggest a suitable service package. Depending on the socio-economic situation, some patients may receive a full set of care funded by the City, while others get some specific service components. Some patients are offered vouchers by which they pay the private providers.

For political reasons, the City did not outsource all of the home care services. It kept a sizable amount of needs assessment and service production in-house, as a system parallel with private producers. This includes institutional care, which is not part of the Kotitori model. In 2014 the Kotitori model covered about 14% of the home care services for the over 75 years old population and was restricted to a few districts of the City.

There are 15 private service producers of various sizes that are sub-contractors to Kotitori. They are the core group of service providers and operate mostly within the voucher system. There are about one hundred providers of other auxiliary services, such as catering, hairdressing, and physiotherapy, for which customers pay out of the pocket. Kotitori is their sales and marketing channel. Mawell Care is a special case, as it is both a part of the Kotitori consortium and a service provider. The rationale for this is that the VMO / Integrator needs to stay touch with the realities of actual service production.

In 2013, 12% of those who approached Kotitori were advised that they needed no services, 27% went for a public service, 13% for public and private, 20% for private, 11% for voluntary services, and 17% of all customers were advised to continue the way they had been up till now.

Kotitori has an added function to serve as a consultant to improve the City's own production of the elderly services. According to an internal review by the City, the capacity utilization rate (direct patient work hours / total hours) of the City's own production increased from 49% in September 2009 to 56% in December 2014.

### 7. Performance evaluation of Kotitori model

Since the Kotitori model was implemented in a few selective districts in the city, this allows comparisons between Kotitori and the traditional models.<sup>1</sup>

During Kotitori's first year of operation, it held 360 customers with total cost of 4.1 million  $\in$ , including the VMO fee of 0, 9 million. The direct cost per customer over 75 years of age within Kotitori was 1 287  $\in$ , while for those within the City production the corresponding figure was 1958  $\in$ . The direct cost includes case management

(patient guidance), regular home care, use of specialist care, and short-term hospitalization. These are not adjusted for severity, although there is no reason to assume significant differences between two groups. The Kotitori customers had less cases of moving to hospital care, resulting in an aggregated saving of 0.4 Million  $\in$ . The cost of case management per customer for Kotitori was  $813 \in$ ; significantly higher than traditional cost of  $533 \in$  in the City production on average, suggesting that good case management at an early stage will reduce costs later on.

For the fiscal year 2013 an accounting firm was commissioned to compare the costs of the Kotitori and the City production of home care.

The number of patients in the Kotitori system had increased eightfold to 2 831. The number of customers within the City system was 17 464. The Kotitori average case management cost per customer was still 26% higher than those of the City. However, the total cost per over 75 years old customers within the Kotitori, were  $811 \in$  lower than those in the City system.

In a publicly financed elderly care a major cost driver is the utilization of medical services, such as emergency calls and short-term hospitalization. Compared to the City production, +75 years old Kotitori customers made

- 14% less visits to emergency care,
- utilized 15% less inpatient care,
- had 30% less consultations with specialists, and
- 29% less moves to institutional care.

<sup>1</sup> Performance measurement in health and social care is a difficult issue. The ultimate measure should be situationally adjusted health outcomes per resources spent (Porter and Teisberg 2006). Public organizations spending taxpayers' money to the benefit of citizens do not have the habit of measuring customer satisfaction. As data is difficult to gather and normalize, average costs per customer and capacity utilization will be used in this paper.

### 8. Summary and conclusions

In this paper, the Kotitori home care model has been discussed as an evolved Service Machine from traditional in-house production and outsourced programs. The evolution of the Service Machine design is illustrated in Figure 2.



Figure 2. The Evolution of a Service Machine

A Vendor Management Organization (VMO) can be used to manage a three-way principal-agent relationship where a principal (City administration) employs independent vendors (home service producers) to serve the City's population (end user). The principal can control the VMO through various incentive systems, that link performance at the end-user–level, such as cost, hospitalization, and use of emergency services, to the income of the VMO. As a private contractual representative of a public entity, the VMO can contract with service providers following ordinary business-to-business practices, design revenue models that include bonuses and penalties, and monitor performance based on results at the patient level.

A further step is that the VMO takes the role of a service integrator. A recurring problem in elderly care is the fragmentation of the service system into different professional "silos" that do not communicate well with each others and thereby cause avoidable costs, such as unnecessary emergency care and hospitalization. It is the interface to end-users and provides case management services, through which the needs of customers, their socio-economic situation, and the alternative service options are integrated into a care plan accounting for whole-person needs.

The Integrator–model, however, faces practical and administrative limitations. It is applicable only in larger cities where there is a market for services and several competing providers. In small municipalities the direct outsourcing model (2) is still feasible. Further, if services are publicly funded, it is a public task to decide about entitlements that may become costly. Therefore the Kotitori VMO-Integrator model can be used only in home care and other light services, where the needs assessment can be done by competent professionals and does not require public administrative decisions. Therefore the Kotitori model is used parallel to the traditional model (1) of City production services where administrative fiat is applied to entitlement decisions.

This is one possible reason why the Kotitori model, despite demonstrated performance and a lot of publicity, has not been widely adopted in Finland. The basic ideas, however, have been widely diffused and several municipalities have been developing their own versions. The thinking behind the Kotitori model has also had a

wider impact on the public policy debate in Finland.

In 2015 the government announced its intention to implement a thorough reform of the current health and welfare system<sup>2</sup>. While the details are still under construction, it appears that the integrator –function will be a core element of the new system. According to plans, the country will be divided into eighteen health and welfare districts (HWD). Each of them will receive funding from the central government in one installment that should cover all costs for the respective populations. Thus financial integration is aimed at the regional level. All current public producers will be organized as limited liability companies (ltd.). Each HWD then needs to establish an Integration Authority that oversees the market using authorization of providers, and financial instruments, such as population –based capitation for primary care services, vouchers and fee-for-service billing of specialist care.

Given the fact that in all developed countries health care costs are rising in an unsustainable way without corresponding benefits in public health, there is a dire need of administrative and organizational innovations related to care integration.

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<sup>&</sup>lt;sup>2</sup> The author is working on this reformation as a government committee member.

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# Long term care in the Netherlands: Towards managed competition?

Richard van Kleef<sup>\* 1</sup> Hiroyuki Kawaguchi<sup>\* 2</sup>

#### Abstract

In 2006, the Dutch government introduced the "Health Insurance Act" which is based on principles of managed competition. In this scheme insurers and health care providers are competing on price and quality while the regulator establishes regulation to protect public objectives such as individual affordability of health insurance. As shown by Van Kleef (2012) managed competition comes with some crucial preconditions. These include risk equalization, transparency of consumer information, appropriate incentives for cost containment, freedom of choice for consumers, contestable markets, contracting freedom, effective antitrust policy, no possibility for free-riding and guaranteed access to healthcare. So far, the "Health Insurance Act" mainly included short-term care. In the Dutch policy debate, however, some parties have proposed to expand the "Health Insurance Act" (and thereby managed competition principles) to long-term care.

This paper focusses on the question "Is managed competition appropriate for long-term care?" In order to answer this question we first update the work by Van Kleef (2012) by reviewing (anno 2014) the extent to which the preconditions are fulfilled for short-term care. In a second step we discuss whether it is likely that these preconditions can be fulfilled for long-term care. If not, what are the alternatives?

When it comes to the preconditions for managed competition, Van Kleef et al. (2014) have shown that over the past years improvements have been made with respect to short term care. Despite these improvements, there are still some important bottlenecks. First, the risk equalization system undercompensates insurers for groups of chronically ill and overcompensates them for groups of healthy individuals, which confronts insurers with incentives for risk selection. Second, there is a lack of transparency when it comes to the quality of health care and health insurance products. Without transparent quality information it is impossible for insurers to take into account such information for the purpose of selective contracting and/or remuneration of providers. Moreover, consumers will not be able to take into account quality when it comes to choosing a health plan.

We expect that for long-term care it will be even more difficult to fulfill the preconditions for managed competition than for short-term care. Moreover, there are three fundamental issues when it comes to the question whether managed competition is appropriate for long-term care. First, is it possible to organize sufficient risk equalization for long-term care? Second, are users of long-term care able to make a well-considered choice of health insurer? Third, are non-users of long-term care interested in the quality of long-term care? If the answers to these questions are negative, then managed competition may not be appropriate for long-term care.

[Key words] long term care, managed competition, risk equalization, the Netherlands

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### 1. Introduction

In 2006, the Dutch government introduced the "Health Insurance Act" which is based on principles of managed competition. In this scheme insurers and health care providers are competing on price and quality while the regulator has established regulation to protect public objectives such as individual affordability of health insurance. So far, the "Health Insurance Act" has applied to short-term care. In the Dutch policy debate, however, some parties have proposed to expand the "Health Insurance Act" (and thereby managed competition) to long-term care. This paper focusses on the question "Is managed competition appropriate for long-term care?" For an answer we first update the work by Van Kleef (2012) by reviewing (anno 2014) the extent to which the preconditions are fulfilled for short-term care. In a second step we discuss whether it is likely that these preconditions can be fulfilled for long-term care.

This paper is structured as follows. Section 2 provides a brief overview of the health insurance system in the Netherlands and section 3 summarizes the main principles of managed competition. Section 4 focusses on the achievements of managed competition for short-term care and discusses some remaining bottlenecks. Section 5 discusses whether managed competition can be an appropriate model for long-term care and section 6 reviews the alternatives. Finally, section 7 summarizes the main conclusions.

### 2. Overview of the health care system in the Netherlands

The Dutch social health insurance consists of two main components (Van Kleef, 2012). One is the health insurance scheme for long term care, which covers, for example, elderly care and care for mentally and physically disabled. In 2014 the total budget for this scheme was about 30 billion Euros. The other component is the "Health Insurance Act" which covers basic and essential short-term care such as primary care, short-term hospital stays and specialist procedures. This paper refers to these treatments as *short term care* because the duration of these treatments is normally not longer than one year. In 2014 the total budget for the second scheme was about 40 billion Euros.

The scheme for long term care and the one for short term care fundamentally differ in the way they are organized. Short term care is organized according to principles of managed competition, which means that private health insurers purchase the care for all people who have the basic health insurance. These health insurers are competing with each other, and bear financial risk. Competition and financial risk are key principles of the managed competition model. These principles are absent in the scheme for long term care where the purchasers of care bear no financial risk and are not competing.

In order to improve efficiency of long-term care some people have proposed to expand managed competition to long-term care. We doubt however whether managed competition is appropriate for long-term care. As shown by Van Kleef (2012) managed competition comes with some crucial preconditions. These include risk equalization, transparency of consumer information, appropriate incentives for cost containment, freedom of choice for consumers, contestable markets, contracting freedom, effective antitrust policy, no possibility for free-riding and guaranteed access to healthcare. To build our case we will first show how that these preconditions have not yet been fulfilled for short-term care. After that we will argue that fulfillment of these preconditions may be even more difficult for long-term care. Moreover, it is questionable whether these preconditions can ever be fulfilled for long-term care.

### 3. Theoretical concept of managed competition

The model of managed competition has three main features (Van Kleef, 2012). A first feature is that consumers have a periodic choice of health insurer. In theory, this leads to competition among the insurers because they need to do what is best for consumers in order to attract new enrollees. The second feature is that the insurers can selectively contract with providers, which gives providers an incentive to do what is best for the patients, in order to get a contract with the insurers. While the benefit package is standardized in terms of treatments, insurers are free to decide where, by whom and how the care is delivered. The third feature is that the government has established certain regulation in order to protect public objectives such as individual affordability of health insurance. Specific regulation includes an individual mandate to buy health insurance, standardization of the benefit package, open enrollment (i.e. insurers have to accept every new applicant), premium regulation (i.e. insurers are not allowed to risk-rate their premiums according to individual risk characteristics), risk equalization (i.e. insurers are compensated for predictable variation in medical spending across individuals) and an allowance for low and middle income people.

### 4. What has been achieved by managed competition in the Netherlands?

Van Kleef et al. (2014) have evaluated the achievements by managed competition in the Dutch healthcare system. An important observation is that – over the past years – the increase in medical spending slowed down (see Figure 1). Since 2010, there has been a reduction in the prices and volumes for pharmaceutical care. One of the main drivers for this reduction is selective contracting of generic instead of brand pharmaceuticals. Since 2012, there has also been a reduction in the growth of hospital care. One of the main drivers of this reduction is that insurers have introduced a global budget per hospital, which provides hospitals with strong incentives for cost containment.



source: Kleef (2014)

Figure 1. Annual growth of healthcare expenses under the Health Insurance Act

Though the results in Figure 1 look promising, Van Kleef et al. (2014) also reveal an important goal that has not yet been achieved: insurers have not yet been successful in improving and stimulating the quality of care. There are two important reasons for this. The first is the absence of appropriate incentives to improve the quality of care for insurers. The second reason is that they have insufficient instruments to stimulate the quality of care. These two shortcomings have to do with the fact that some of the crucial preconditions for managed competition have not yet been fulfilled.

| Precondition   | 2006 | 2009 | 2014 |
|--|------|------|------|
| 1. Risk solidarity without incentives for risk selection |      |      |      |
| Risk solidarity  | **** | **** | **** |
| Sufficient risk equalization                             | **   | **   | ***  |
| • No incentives for risk selection                       | **   | **   | **   |
| 2. Transparancy and consumer information                 |      |      |      |
| • Health insurance products                              | **   | ***  | ***  |
| • Healthcare products                                    | *    | *    | **   |
| 3. Appropriate incentives for cost containment           |      |      |      |
| • Consumers  | **   | **   | ***  |
| • Health insurers  | **   | ***  | **** |
| • Healthcare providers                                   | *    | *    | **   |
| 4. Sufficient freedom of choice for consumers            | ***  | ***  | ***  |
| 5. Contestable markets                                   |      |      |      |
| Healthcare providers                                     | *    | **   | ***  |
| • Health insurers  | ***  | ***  | ***  |
| 6. Sufficient contracting freedom                        | *    | **   | ***  |
| 7. Effective anti-trust policy                           | ***  | ***  | **   |
| 8. No possibilities for free-riding                      | **   | **   | ***  |
| 9. Sufficient supervision of quality                     | ***  | ***  | ***  |
| 10. Garanteed access to healthcare                       | ***  | ***  | **** |

Table 1. To what extent are preconditions for managed care fulfilled?

source: Van Kleef et al (2014)

\*: degree of fulfillment of the preconditions

Table 1 shows the extent to which the preconditions are fulfilled in 2014. Comparison with 2006 and 2009 reveals some major improvements. Nevertheless, some preconditions are still insufficiently fulfilled. Three bottlenecks will be discussed here: the presence of incentives for risk selection, the absence of quality information and the absence of appropriate incentives for cost containment for health care providers.

A major bottleneck in the current system is the presence of incentives for risk selection. These incentives arise because insurers have to charge community-rated premiums while they know that the chronically ill are more expensive than the young and healthy. Risk equalization should compensate insurers for these predictable differences in medical spending. Though the risk equalization system substantially improved over the last decades, it still undercompensates insurers for groups of chronically ill.

| Subgroup based on health survey<br>information from the prior year | Estimated<br>size in<br>population | Predictable<br>loss per<br>person per<br>year in<br>euro's |
|--|------------------------------------|--|
| At least one chronic condition                                     | 31.5%                              | -331   |
| Worst score physical health (SF-12)                                | 18.9%                              | -670   |
| Contact with medical specialist in last 12 months                  | 37.8%                              | -326   |
| Hospitalization in last 12 months                                  | 6.5%                               | -571   |
| Use of physiotherapy in last 12 months                             | 21.8%                              | -328   |
| Use of prescribed drugs in last 14 days                            | 35.7%                              | -186   |

Table 2. Evaluation of the Dutch Risk Equalization Model of 2014

source: Van Kleef et al (2014)

Table 2 shows the undercompensation for several groups of chronically ill. For people with at least one chronic condition, about one third of the population, insurers are undercompensated by more than 300 Euros per person per year. Since insurers are not allowed to risk-rate their premiums, these undercompensations confront them with incentives for risk selection. More specifically, insurers are discouraged to meet the preferences of the chronically ill, e.g. if an insurer improves the quality of care for people with a chronic disease he will probably attract relatively many consumers with large predictable losses.

A second major problem is the lack of transparency when it comes to the quality of healthcare products. Despite the presence of a classification system for health care products (i.e. all health care products are more or less defined) it is hard to compare the quality of these products across providers. This is a problem for both consumers and insurers. For insurers the lack of quality information makes it impossible to take such information into account in the negotiations and remuneration of providers. In an ideal world, insurers would selectively contract and pay providers on the basis of "performance". As long as quality information is absent this ideal world is far away.

Van Kleef et al. (2014) conclude that – in order to reap the fruits of managed competition – it is crucial to improve the risk equalization system and to develop a practical set of quality indicators. With respect to the latter the Dutch could learn from experiences abroad such as with the QOF model applied in the United Kingdom (Smith, 2015).

### 5. Managed competition: an appropriate model for long term care?

### (1) Procedures for long term care in the Netherlands

Figure 2 summarizes how the current long term care system in the Netherlands works. If a patient or a consumer is in need of long term care, he or she can go to the so-called Care Assessment Center (CIZ). This is an independent organization that assesses whether and to what extent the patient is actually in need for long term care. There are similar procedures in Japan, Germany and the Nordic countries.



source: Author

Figure 2. Procedures for long term care in the Netherlands (2014)

Once the care assessment center decides that the patient is in need of long term care, there are two options: 1) the patient can get the care in kind or 2) via a cash benefit. In the first case, the care is purchased by one of 32 regional purchasing offices who are not competing and bear no financial risk. In the second case, the care is purchased by the patient himself. About 90% of long term care budget is spent on in-kind care and 10% of the budget is spent on cash benefits.

### (2) Bottlenecks in the scheme for long term care in the Netherlands

There are at least seven bottlenecks that have been mentioned in the Dutch health care debate over the past years. Hence we will briefly describe these bottlenecks:

- The first problem is the lack of financial incentives for efficiency for the purchasers of care. These purchasers are just administrative offices that do not compete and bear no financial risk. Financial incentives for cost containment are absent.
- In the second place there are serious incentives for undesirable substitution. With separate schemes for short term care (for which insurers bear financial risk) and long term care (for which insurers bear no financial risk), insurers have a financial incentive to transfer spending from the first scheme to the second.
- A third problem is the lack of opportunities for integration and coordination of short term and long term care due to differences in the way these schemes are financed.

- A fourth bottleneck is that consumers are confronted with different windows and offices for short-term care and long-term care. This can be particularly stressful for those who are in need for both types of care.
- In the fifth place, there is a relatively strong dependence on institutional care. It has been studied that a major part of the long term institutional care can potentially be substituted with home care, which is must cheaper.
- A sixth problem is that the healthcare benefits are not well targeted. There is evidence that healthcare benefits are also provided to people who are not really in need of long term care.
- In the seventh place long term care utilization is increasing steeply due to aging of the population. That is a common problem in developed countries.

These bottlenecks have triggered a political debate on long term care in the Netherlands. One of the main questions is "Should long term care, or parts of it, be transferred to the scheme with managed competition?" For example, the government has decided recently that in 2015, home care (4 million Euros per year) will be transferred to the Health Insurance Act. A crucial question, however, is whether the managed competition model is appropriate for long term care. It may be appropriate for short term care, but that does not necessarily mean it is also appropriate for long term care.

### (3) Is managed competition an appropriate model for long term care?

The answer to this question depends on the extent to which the preconditions for managed competition are fulfilled for long-term care. The current bottlenecks in the scheme for short-term care (e.g. imperfect risk equalization and the lack of quality information) are also present for long-term care. This in itself would be a reason to wait with managed competition for long term care until all preconditions for short term care are fulfilled. But even when - one day – the preconditions are fulfilled for short-term care is doubtful whether this will also be the case for long-term care. There are at least three fundamental issues when it comes to managed competition for long term care. First, is it possible to organize sufficient risk equalization for long term care? Second, are users of long term care able to make a well-considered choice when it comes to health insurance products and health care providers? Third, are non-users of long term care interested in long-term care? Hence, we discuss these issues in more detail.

### (4) Is it possible to organize sufficient risk equalization for long term care?

Risk equalization is the cornerstone of managed competition. With imperfect risk equalization, insurers have no incentive to invest in quality of care for people with a chronic disease. As mentioned earlier in this paper, the current risk equalization for short-term care is still not sufficient, despite 25 years of policy research. For long term care, it will be even more difficult to organize a sufficient risk equalization system. The explanation is simple. Compared to short term care, the group of long-term care users is relatively small. Moreover, these people incur relatively high, or very high spending, which is quite predictable for insurers. For instance, when a patient is in a long term care facility in year t it is very likely that the patient will be in the same facility in year t+1. This implies that insurers can easily identify high-cost patients just by checking the cost history of their clients. A problem with historical costs, however, is that this type of information is generally not appropriate for risk equalization. For example, when long term care spending in the previous year were used as a risk adjuster for next year, incentives for efficiency would be substantially reduced. More specifically, such a risk adjuster would encourage insurers to inflate spending on long-term care in order to receive higher risk equalization payments in later years. Ideally, risk equalization should not create such incentives and endogenous risk adjusters should be avoided.

If it is not possible to organize sufficient risk equalization for long term care, then what will be the motive for insurers to invest in the quality and service regarding long term care? The Dutch government recently decided to

transfer "home care" from the long term care scheme to the Health Insurance Act. Recent research has shown, however, that people using long term care this year are undercompensated for short term care next year by on average more than 1000 Euros per person per year (Van Kleef et al., 2014).

### (5) Are users of long term care able to make well-considered choices?

Another fundamental question is whether the users of long term care are able to make well-considered choices when it comes to selecting a health insurance product or a health care provider? This is an important precondition for managed completion. If consumers are not able to "vote by foot" insurers have no incentives to meet the preferences of these people. For some types of long term care it is doubtful whether patients are able to make well-considered choices. Clear examples are patients suffering from dementia, drug addiction and psychiatric disease. If these people do not respond to quality differences among health insurers, then what will be the motive of the insurers to invest in the quality of the specific long term care used by these patients?

### (6) Are non-users interested in long term care?

The third issue is that the majority of the population does not expect use of long term care in the near future. As mentioned before, the group of long term care users is very small. If the majority of the population is not interested in long term care, what will be the motive for the insurers to invest in the quality and service regarding long term care?

### 6. What are the alternatives?

### (1) Two alternative options

If managed competition is not an appropriate model for long term care, than what are the alternatives? In the Netherlands there are two options under consideration. The first is to transfer long term care or parts of long term care from the central to local governments. The second is to maintain the long term care in a public scheme.

### (2) Transition of long term care from the central government to the local government.

With this option the local government becomes responsible for organizing long term care. This alternative has some advantages compared to the managed competition option: the integration with other local services will be easier, there will be no risk selection problems and voting by foot will not be necessary for long term care patients (instead the incentives to invest in long term care result from a democratic process).

Next to these advantages, there are also some disadvantages compared to the managed competition option. For example, integration and coordination of short term care and long term care will be more difficult when the two remain in separate schemes. A second potential problem is the possibility of variation in quality and service between regions. From a social perspective this may be regarded unfair. A third problem is that there may be less freedom of choice for patients. If the long term care contracted by your local government is very poor, you have to move to another region in order to receive better care. It is unlikely, however, that people are that flexible.

The most likely option for the Netherlands is that only parts of the long term care will be transferred to local governments. In fact, in 2007, a part of the long term care, including assistance with daily living, was already transferred to local governments. Municipalities receive a non-earmarked budget for this type of care, which means that if they succeed in not using the entire budget, then they can spend the remaining part on other things. In fact, this means that municipalities bear financial risk. Municipalities can selectively contract with health care providers, which gives these providers strong incentives for efficiency. The results of this new system were very appealing. The competition among health care providers has helped reducing the average price of one hour assistance with daily living by more than 20%, compared to the old system. In 2007, the municipalities saved 150

million Euro out of a total budget of 1.2 billion Euro for assistance with daily living (SCP, 2009). However, the effects on quality were unclear.

### (3) Maintaining long term care in present scheme

The other option is maintaining long term care in the public scheme as it has existed since 1968 (Van Kleef, 2012). Particular advantages of this option are that voting by foot is not necessary, risk equalization is not necessary, and there are no risk selection problems. With this option, new ways have to be found for tackling the bottlenecks discussed in Section 5.2. One promising direction may be to implement some form of pay-for-performance, but given the lack of quality indicators this is a long way to go.

### 7. Conclusion: Lessons from the Netherlands

The considerations in this paper lead to the following conclusions. In the first place, managed competition in the Netherlands seems to have slowed down the growth in health care spending. But in the second place, it is not yet clear whether managed competition has been effective in promoting quality of care. The reasons may be the lack of accurate quality information and the fact that risk equalization still discourages insurers to invest in the quality of care for some groups of chronically ill. These bottlenecks must be tackled soon in order to avoid that the Dutch health care system will slow down the cost growth at the expense of the quality of care.

Fulfillment of the preconditions for managed competition may be even more difficult for long term care than for short term care. In this paper we have discussed three fundamental problems when it comes to managed competition for (particular parts of) long term care: accurate risk equalization may not be feasible, patients may not be able to make well-considered choices and the majority of the population does not expect to use long term care in the near future and is therefore not interested in long term care.

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