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Quality and efficiency improvement and cost containment through regulated competition in the Dutch health care system

Key words: health care reform, the Netherlands, quality, efficiency, cost containment

■ Introduction

In 2006 the Netherlands commenced a major reform of its health care system. For consumers the most notable element was the reform of the health insurance system. The then existing system of social health insurance for people with below average income and private health insurance for people with above average income was replaced by a universal private health insurance with the identical entitlements and contributions for all. Tax subsidies helped low income people to cover the costs of health insurance. A second element of the reforms was the gradual introduction of elements of managed competition in hospital markets. More general, health insurers and health providers were given more freedom in contracting as the regulation that obliged health insurers to contract every registered health care provider – general practitioner, hospital, physiotherapist, etc. – was abolished.

The main aims of the reforms were to improve the so-called “public interests” in health care. These “public interests” were defined as quality, access, efficiency and cost containment in health care. At the time of the reforms it was widely recognized that the health care system failed to deliver on these public interests. Access to health care was severely hampered by waiting lists. Before the health insurance reforms, contributions to health care financing were highly regressive with low income earners contributing a larger share of their income to the health care system than people with a high income. Dissatisfaction with the performance of the health care system was widespread among the population, and it was widely believed that the system was lagging behind in efficiency and quality of health care delivery. Productivity growth in health care was negligible and in some parts of the health care system even negative.

The aim of this paper is twofold: to describe the reforms that have been enacted and to evaluate the impact of these reforms on the “public interests” in health care.

■ Reform of the health insurance system

The aim of the health insurance reform was to marry the aspiration of “universal coverage” with the principles of regulated competition. The new insurance law obliged all residents to have basic health insurance, provided by 14 competing private insurance companies and several related subsidiaries. Insurers are required to accept each applicant at a community-rated premium regardless of age or pre-existing health conditions. The basic health insurance covers hospital care, care by general practitioners and medical specialists, prescription drugs, maternity care, obstetrics, technical aids and dental care for children. Insurers are obliged to accept every eligible applicant, regardless of their risk profile. Once a year there is a six week period in which individuals have the opportunity to switch health insurers.

The basic package of the Dutch health insurance system (“Zorgverzekeringswet”) is financed by income-related premiums and nominal premiums. In order to ensure that insurance providers can continue to operate profitably despite carrying such a wide range of risks, the government has also created a “risk equalization fund”, to which premium payers are obliged to contribute. On average, 50% of total health expenditures are financed by income-related contributions. The income-related contributions are paid into the Risk Equalization Fund, out of which insurers receive equalization payments to compensate for high-risk enrollees. Variables that determine the compensation level out of the Equalization fund include, age, gender, postal code, and medical consumption in the past. The Risk Equalization Fund was established in order to create a level playing field among competing insurance companies.

About 45% of total expenditures are financed through the community rated insurance premiums. These premiums go to the insurance company directly and are not redistributed through the Risk Equalization Fund. Insur-

ance companies compete among each other on the level of these community rated premiums.

The direct cost to consumers of this system are moderate: the average insurance premium for an individual is approximately 1050 € per year. These premiums are paid directly to the insurer and are community rated for all insured with the same type of insurance policy provided by the insurance company. Insurers offer both “in-kind” insurance policies and policies based on cost refunding. Insurers compete to offer the basic insurance at the lowest possible premium (and the best possible quality).

There is a compulsory deductible of 155 € per year (in 2010) and the option for a maximum voluntary deductible of 500 € (i.e. 655 € in total). The costs of the general practitioner are exempted from the deductible. For care that is not included in the basic package – such as dental care for adults, alternative medicine and most of the physiotherapy – there is a voluntary supplementary insurance with risk-related premiums.

Children below the age of 18 are exempted from paying insurance premiums. The government finances medical care for children up to the age of 18 through the risk equalization fund. People with low income are directly compensated for the costs of the nominal insurance premium. They receive an income dependent supplementary care benefit through the tax office to compensate them for the cost of the community rated premiums. This compensation is paid out of general taxation.

Approximately 98% of the population has bought a basic health insurance. Nearly 2% of the population is uninsured, while a similar percentage has insurance but is late with its premiums. In addition to the basic package approximately 90% of the population buys a supplementary health insurance package as well.

The introduction of the new insurance system has had several notable benefits. Most obviously, it has led to fierce price competition and a large number of consumers switching health insurers. At the introduction of the new system approximately 20% of the insured switched to a different insurer. In later years this declined to an annual switch rate of about 5%. Price competition was heavy at introduction but has declined over the years, as the health insurance sector has consolidated through mergers and takeovers. The four major health insurers now cover more than 80% of the market. During the first years after the introduction all major health insurers had losses on the basic health insurance. These losses are covered by capital the insurers accumulated in the past and by profits they made on the supplementary insurances. Currently most insurers make a small profit on the basic package as well.

For the in-kind insurance policies, insurers contract directly with health care providers. Increasingly insurers engage in preferred-providers contracts, with insurers providing incentives to their customers to use these preferred providers. From 2009, insurers can waive the deductible (both the compulsory and the voluntary one) if the customer uses one of the preferred providers.

Managed competition in hospital markets

In 2010 the Netherlands counted 98 hospitals (including 8 academic hospitals). Aside from these general hospitals there are a small but growing number of – so-called – independent treatment centers which provide specialized ambulatory care, day care and in some cases also provide in-patient care for selective treatments.

All hospitals in the Netherlands are private, not-for-profit institutions. Private equity ownership is legally not allowed. It is expected, however, that in the coming years experiments with (partially) for profit hospitals will be conducted. Legal ownership of almost all hospitals and independent treatment centers is by a not-for-profit foundation. Hospital management lies with an executive board of two to five people, depending on the size of the hospital. A board of trustees of the foundation provides oversight and governance to the executive board. All medical specialists at academic hospitals are in paid employment of the hospital. At general hospitals most medical specialist are not in paid employment with the hospital. In the general hospitals specialists are usually partners in a cooperation of medical specialists. The cooperation of medical specialists is a independent legal entity. Each individual specialist enters into a contractual relation with the hospital in order to be allowed to practice in the hospital.

A crucial element in the introduction of regulated competition in hospital markets was the introduction of Diagnosis Treatment Combinations (DBC). A DBC is a 7 figure classification code that a patient receives after a first contact with a medical specialist in the hospital (mostly at the first visit of the polyclinic). The DBC code specifies the diagnosis and the normative treatment in terms of consultations, diagnostic tests, treatment and normative time spent on the patient by medical specialists. It somewhat resembles the Diagnostic Related Groups (DRG) that are used in hospital financing elsewhere, but by construction and content the DBC's are different from any DRG system.

Since 2008 hospital reimbursement is based on the number of DBC's produced. The DBC price or tariff includes the full costs of treatment, including hospital stay, materials, costs of physicians and staff, and compensation for equipment and building costs. Consequently, hospitals have to cover all costs from the production of DBC's, whereas previously hospital received separate budgets for hospital beds, building and renovation, purchase of equipment, and treatment of patients. This change to a full cost reimbursement based on production of care has substantially increased the financial risks for hospitals. As a result some hospitals have started to make financial losses and a few of them have become insolvent.

The DBC's also determine the compensation for medical specialists. Each DBC includes a normative time for medical specialist care. For each hour allocated in the DBC the medical specialist receives 132.50 €. This includes costs for overhead for the medical specialist. Total

revenue for the medical specialist is determined by the total number of DBC's produced, the normative time per DBC times 132.50 €.

For about a third of all hospital interventions DBC prices are freely negotiable. The DBC's for which prices are negotiable mainly include elective surgery. Hospitals compete on price and quality of care in contracting insurers for these procedures. Insurers use these cost and quality differences to steer patients to preferred providers. By contracting more with hospitals that offer lower prices and better quality, insurers reduce waiting times at these hospitals. Shorter waiting times are used by insurers to steer patients to these hospitals.

■ Governance in health care

There is an extensive system of external governance. This external governance complements the internal governance by the board of trustees or the non-governing board of the health care organization. The Dutch Health Authority (Nederlandse Zorgautoriteit, Nza) monitors the health insurance market and the health care delivery markets. It is the task of the Health Authority to guard the public interests and to ensure access, freedom of choice and managed or regulated competition in the system. The Health Authority also has the responsibility to set prices or tariffs in health care markets where prices are not freely negotiable. Quality of care is monitored and safeguarded by the Health Care Inspectorate (Inspectie voor de Gezondheidszorg, IGZ). Major mergers between health care organizations are subject to approval of the Netherlands Competition Authority (Nederlandse Mededingingsautoriteit, NMa). The Competition Authority can also intervene and impose sanctions when two or more health care organizations are colluding to increase prices or try to divide the market between themselves.

A quasi-governmental institution, the College of Health Insurance (College voor Zorgverzekeringen, CVZ) advises the minister of health about the content of the insured package and the inclusion of innovative treatments for reimbursement in the basic health insurance package. The minister of health almost always adheres to the advice of the College in his decision about the insurance package.

The income-related premiums that are collected by the tax administration and are put in the Risk Equalization Fund, are subsequently allocated by the College of Health Insurance (CVZ) to the separate health insurers. CVZ uses a risk adjustment formula to compute the prospective budgets of the health insurers.

■ The effects of the reforms on the "public interests"

What have been the effects of the gradual reforms in the health insurance and health care purchase markets on the 'public interests' defined by the Dutch government?

Quality

In 2009 and 2010 the Netherlands ranked first on the Euro Health Consumer Index which measures quality of health care systems in Europe (see www.healthpowerhouse.com/archives/cat_media_room.html). This first place is generally perceived as a result of the health care reforms.

In 2008 a number of health insurance companies started to work together with local, regional or national patients groups to develop patient-centered criteria for contracting care-providers. Insurers have become more and more interested in the preferences of patients for the sake of purchasing. After all, it makes good business sense.

This coalition of insurance providers and patients seems to be quite effective. It has provided a counterbalance to the strong health care providers, traditionally the most powerful player in this market. It improves the position of the patient and it entitles the insurer as the formal representative on the demand side. Moreover it provides a strong incentive for the insurer to concentrate on patient-oriented care and on quality, instead of focusing on the price of their policies.

Insurers also use selective contracting to steer patients. Selective contracting enables insurers to offer quicker access to care in one hospital while at the same time lengthening waiting times at others. Insurers use the length of waiting time to steer patients to better quality hospitals. Recently, one of the largest health insurers published a list with quality ratings of breast cancer treatment of all Dutch hospitals and announced that it will no longer contract the worst performing hospitals for breast cancer treatment. Other health insurers have announced they will also use explicit quality indicators for selective contracting. For this, some insurers use negative lists of hospitals they do not want to contract, others use positive lists of preferred (or star-rated) providers. Aside from selective contracting, insurers are able to guide patients to their preferred providers by providing counseling and information to their insured where to find treatment.

The Dutch government has tried to bring greater transparency to the performance of health care providers. Within a few years, providers will be obliged to quantify the quality of the care they provide, in a way that will enable patients themselves to make an informed choice about the different options. Patients will be able to 'vote with their feet' to determine which insurance companies offer the best value.

Access

Waiting lists for hospital treatment and medical specialist have either disappeared or have been greatly reduced over the past ten years. This is partly due to efficiency improvement and productivity growth (better planning and improved logistic processes). The main reason for the reduction in waiting lists is the increase in health care spending which has led to more treatment of patients by physicians.

In the health insurance market the regressive system that was in place before the reforms has been replaced by a system with the same basic package of entitlements for all citizens (previously people with private insurance could choose what to insure and what not) and a fairer distribution of contributions because of the tax subsidies for low income people (previously young high income earners with private insurance paid far less in health insurance premiums than low income earners who were in the compulsory social insurance system).

Efficiency

One of the most remarkable achievement of the liberalization of hospital prices has been an increase in productivity growth. During the period 2000–2008 average annual labor productivity growth in hospitals was 0.8% [1]. This is double the labor productivity growth in the entire health care sector (0.4%). Productivity growth also has increased after prices for hospital treatment (DBC prices) were partially liberated.

Cost containment

The risk equalization system provides some incentives to insurers for cost control. For insurers the greatest financial risks are on the costs for general practitioners and pharmaceuticals. For hospital costs there is a risk sharing mechanism or a mutual insurance by which high hospital costs are partly shared between insurers. Also insurance companies are compensated if the macro budget for health care – on which the premium levels are based – is exceeded. These ex post compensation mechanisms considerably reduce the financial risks for insurers and consequently the incentives for insurers to force hospitals to reduce costs and increase efficiency.

The prospective budget that health insurers receive from the Risk Equalization Fund for hospital care is supplemented by this generous ex-post compensation system. Consequently, health insurers are only partly

financial responsible for hospital costs. For them additional hospital costs are partly a free lunch compared to pharmaceutical cost and other outpatient costs. This “perverse” incentive discourages substitution of inpatient care by outpatient or pharmacotherapeutic care. Health insurers have little incentives for cost containment in the hospital sector in favor of outpatient care and innovative pharmaceutical care even when the utilization of innovative drugs is more cost effective.

Health insurers do bear the full financial risks for all non-hospital costs (including all outpatient pharmaceutical costs). If the prospective budget for the non-hospital costs for some or all health insurers turns out to be insufficient afterwards, the financial risk has to be borne by the health insurers. This is a strong incentive for health insurers to contain non-hospital costs, such as pharmaceutical costs.

In short, the main drawbacks of unequal risk regimes of hospital care and non-hospital care in the risk adjustment system are:

- It is not in line with the politically and socially desired shift towards outpatient health care.
- It lowers the efficiency of the Dutch health care system.
- It hampers the realization of welfare gains attributed to the utilization of innovative drugs.
- It may reduce the potential gains in quality of life of patients as they do not receive the best available treatment.

The performance of the health insurers in cost containment is poor. The annual real growth rate of health care costs is 4–6%. Insurers have been most active in reducing costs of generic pharmaceuticals. Most insurers have introduced a so-called preference policy for generics, under which only the cheapest drug within a class of identical generic drugs is reimbursed. This policy has reduced spending on pharmaceuticals by approximately 500 € million per year or 5–10% of the total costs.

The poor performance in cost containment of the Dutch health care system is illustrated by the figures

	Real growth % p.y. (2000–2006)	Expenditures as % BNP	Expenditures on curative care per capita (\$) PPP	Expenditures (\$) PPP per consult
Netherlands	4.2	9.3	1887	394
Denmark	4.1	9.5	1851	268
Austria	2.0	10.1	2151	321
Belgium	2.6	10.4	1679	224
Germany	1.4	10.6	1750	240
France	3.1	11.1	1808	274
Italy	2.9	9.0	1760	251
Spain	4.1	8.4	1361	175
UK	5.1	8.4	Nb.	Nb.
Average	3.4	9.6	1781	268

Table I. Expenditures and expenditure growth in health care, selected countries.

Source: RVZ 2008.

in **Table I**. Both the expenditure growth in the Netherlands and the costs per consult were higher than in most other countries. Furthermore, studies by Kroneman et al. (2009) [2] and OECD (2009) [3] show that the income of general practitioners and medical specialists in the Netherlands are among the highest in the world.

Conclusion

The role of the government in the new system is to ensure the “public interests” in health care and to encourage competition and create countervailing power on the care contracting, the health insurance and the care provision markets. In a system of regulated competition the role of the government is to ensure “public interests”: quality of health care provision, access, efficiency and cost containment. This is primarily done through the governance institutions (Nza, NMA, IGZ). On most of these public interests the health care reforms which started in 2005 (but which are not yet fully implemented) have had positive effects.

However, still much needs to be done. Transparency and choice in healthcare depend on the existence of solid, preferably legally-based, quality standards. These standards are not yet in place in the Netherlands, but the government is working towards their development. It is likely that an independent executive council will be created to set these standards.

The reforms have failed to curb the rapid rising costs of health care. This will most likely prove to be one of the most challenging tasks for the years ahead. Eliminating the risk compensation mechanisms for the health insurers is one of the most important tools to provide insurers with more incentives to control costs.

By now, there is overwhelming evidence for a positive relation between quality and efficiency in health care (see, for example, Ludwig et. al. 2010 for evidence on hospitals in the Netherlands [4]). It is this connection that will eventually force health insurance companies to make purchasing decisions based on quality instead of exclusively on prices. Having said that, the reforms are still a work in progress, and there is still a great deal of room for further efficiency gains from health care providers in the Dutch health care system.

Abstract:

In 2006 the Netherlands commenced a major reform of its health care system. The main elements of the reform were: 1) replacement of the existing system of social health insurance for people with below average income and private health insurance for people with above average income by a universal private health insurance with the identical entitlements and contributions for all 2) the gradual introduction of elements of managed competition in hospital markets. The main aims of the reforms were to improve the so-called “public interests” in health care which were defined as quality, access, efficiency and cost containment in health care.

This paper describes the reforms that have been enacted in the Dutch health care system and evaluates the impact of these reforms on the “public interests” in health care.

The health care reforms have had positive effects on most of “public interests”, though still much needs to be done e.g. development of quality standards, curbing the rapid rising costs of health care. Nevertheless, the reforms are still a work in progress, and there is still a great deal of room for further improvement in ‘public interest’ in the Dutch health care system.

Streszczenie:

Poprawa jakości i efektywności oraz ograniczenie kosztów poprzez regulowaną konkurencję w holenderskim systemie opieki zdrowotnej

Słowa kluczowe: reforma systemu opieki zdrowotnej, Holandia, jakość, efektywność, ograniczenie kosztów

W roku 2006 rozpoczęła się reforma systemu opieki zdrowotnej w Holandii. Główne elementy tej reformy to: 1) wprowadzenie uniwersalnego systemu prywatnych ubezpieczeń zdrowotnych z jednolitymi dla wszystkich uprawnieniami i składką, obejmując nim także istniejący system społecznych ubezpieczeń zdrowotnych dla osób wykazujących się dochodami niższymi od dochodu przeciętnego oraz prywatnych ubezpieczeń zdrowotnych dla osób z dochodami wyższymi od dochodu przeciętnego, 2) stopniowe wprowadzenie elementów zarządzania konkurencją na rynku szpitalnym. Głównymi celami tych reform było polepszenie tzw. interesu publicznego (*public interest*) w opiece zdrowotnej, na którego definicję złożyły się jakość, dostępność, efektywność oraz ograniczenie kosztów.

W artykule opisuje się reformy, które zostały wprowadzone w holenderskim systemie opieki zdrowotnej z punktu oceny ich wpływu na *public interests* w opiece zdrowotnej.

Reformy opieki zdrowotnej przyniosły pozytywny skutek w odniesieniu do większości komponentów interesu publicznego, chociaż nadal wiele pozostaje do zrobienia, np. poprawa standardów jakości czy ograniczenie gwałtownie rosnących kosztów opieki zdrowotnej. Niemniej jednak realizacja reform nie została jeszcze zakończona i nadal istnieje wiele możliwości uzyskania dalszej poprawy w zakresie *public interests* w holenderskim systemie opieki zdrowotnej.

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