Private expenditure on health and voluntary private health insurance

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1. Introduction

1.1. GENERAL INTRODUCTION

In this thesis, we will discuss private expenditure on health and voluntary private health insurance (PHI). The two themes are linked since private expenditure represents the market for PHI. Knowing and understanding private expenditure on health is a prerequisite for PHI to respond to consumer needs and to improve welfare.

The following issues will be addressed in this thesis: (i) the reliability of OECD Health Statistics; (ii) supplementary physicians' fees; (iii) access to new health technologies; (iv) the regulation of PHI markets and (v) the optimal design of PHI products.

We will focus on Belgium and neighbouring countries. As regards the regulation of PHI, we will also discuss Slovenia. All these countries are characterised by Bismarckian health care systems and complementary PHI markets. Key figures for these countries are represented in Table 1. The figures for Belgium are quite close to the EU average.

Table 1. Key figures for selected EU countries (2014)

	EU	Belgium	France	Germany	Netherlands	Slovenia
Public expenditure on health[a]	78.74%	77.6%	78.6%	84.6%[b]	80.6%	71.0%
Out-of-pocket expenditure on health[a]	15.34%	17.8%	7.0%	13.0%	12.3%	13.0%
Voluntary private health insurance[a]	4.85%	4.4%	13.7%	1.5%	5.9%	14.8%
Other financing schemes[a]	1.07%	0.2%	0.7%	0.9%	1.2%	1.2%
Percentage of total population covered by complementary PHI	n.a.	82.2%	95.5%	22.9%[c]	84.5%	72.8%

[a]: as a share of total expenditure on health

[b]: including primary (substitutive) private health insurance

[c]: In Germany, another 10.9% of the population holds primary (substitutive) private health insurance.

Figures adapted from OECD, Health at a Glance: Europe 2016

Within the context of this thesis, we will focus on complementary health insurance. Complementary insurance covers services that are excluded from the statutory benefits package or it may reimburse the costs of statutory user charges and supplementary fees charged by health care providers (Thomson and Mossialos, 2009).[1]

1 Supplementary insurance is not within the scope of this thesis. Supplementary insurance offers access to health services that are already covered by mandatory basic health insurance but gives subscribers a greater choice of provider and enables them to bypass waiting lists for publicly-financed treatments (Thomson and Mossialos, 2009). Substitutive insurance is also out of scope. Substitutive insurance provides cover for people not eligible for statutory health coverage or for those who are not required to be statutorily covered and can opt into or out of the statutory scheme (Thomson and Mossialos, 2009). Substitutive insurance plays a significant role in Germany, where about 9 million people have subscribed

In the European Union (EU), private expenditure represents -on average- 21 per cent of total expenditure on health (see Table 1).[2] Three-quarters of private expenditure or 15 per cent of total expenditure is financed out-of-pocket.[3] Voluntary private health insurance (PHI) finances only 5 per cent of total health spending in the EU (OECD, 2016).[4]

Out-of-pocket expenditure on health can negatively affect access to health care. People on low incomes and in poor health are particularly at risk. Households that face difficulties paying medical bills may postpone or even forgo the health care they need.

In the most recent Belgian Health Interview Survey (2013), 26 per cent of households stated that out-of-pocket expenditure on health is (very) hard to bear (in the lowest and highest income quintile the figures are 50 per cent and 5 per cent respectively). In 2013, 8 per cent of Belgian households had to postpone health care for financial reasons (Demarest, 2015). Chronic diseases have a particularly negative impact on the accessibility of health goods and services. 54 per cent of Belgian households with chronically ill members face financial hardship and 46 per cent need to postpone health care for financial reasons (66 per cent postpone dental care, 46 per cent medical specialist care, 44 per cent glasses and 31 per cent medication) (Samana, 2016). Research by a Belgian cancer foundation shows that private health expenses for cancer patients amount to 1,838 EUR (median) during the first year after the initial treatment. 25 per cent pays 2,844 EUR per year or more (Rommel, 2015). Recently, the term 'cancer poverty' has come into vogue (Lewis, 2017).

Out-of-pocket expenditure on health comprises both user charges on the statutory benefits package and expenditure on health goods and services that are not covered by mandatory basic health insurance.

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to substitutive health insurance. The OECD differentiates between complementary, supplementary and duplicate PHI. According to the OECD definitions, complementary insurance covers any cost sharing left after basic coverage. Supplementary insurance adds additional services and duplicate insurance provides faster access or wider choice to providers. Thomson's and Mossialos' definition of complementary insurance is broader than the definition of complementary insurance used by the OECD. In fact, the definition of complementary insurance by Thomson and Mossialos encompasses both complementary and supplementary insurance as defined by the OECD. In this thesis, we use the definitions of Thomson and Mossialos.

2 Total expenditure on health is composed of public and private expenditure. Private expenditure on health includes both out-of-pocket expenditure and expenditure covered by voluntary private health insurance (PHI).

3 Surprisingly, out-of-pocket expenditure in the EU is higher than in the United States, where out-of-pocket expenditure represents 12 per cent of total expenditure on health (OECD, 2017; figure for 2014).

4 Figures for 2014.

User charges (deductibles, co-insurance [a percentage] and co-payments [a fixed sum]) play a role in preventing the overuse of health care provision. However, these mechanisms can also allow the public sector to shift costs onto households. For instance, Thomas, Thomson and Mossialos (2015) find that this has been the case in Slovenia.

In contrast to publicly-funded care, out-of-pocket payments depend on the patient's ability to pay. Therefore, many countries have policies in place to protect categories of the population from excessive out-of-pocket payments. These comprise partial or total exemptions for social aid beneficiaries, senior citizens, or people with chronic diseases or disabilities by capping user charges, either in absolute terms or as a share of income (Paris et al., 2016). However, these policies generally provide protection against the costs of statutory user charges only. Health services and goods that are excluded from the statutory benefits package need to be paid for out-of-pocket by everybody. This is particularly true for certain pharmaceutical drugs, dental treatment and therapeutic appliances such as eyeglasses and hearing aids. Across the EU, pharmaceutical drugs account for 40 per cent of total out-of-pocket expenditure, dental care for 18 per cent and therapeutic appliances for 12 per cent. The remaining 30 per cent is constituted by curative care (OECD, Health at a Glance, 2016).

OECD Health Statistics are a widely used source for detailed information on health expenditure. OECD Health Statistics are used to analyse health policy issues over time and in comparison with other countries (Oderkirk, 2013). When analysing private expenditure on health, it is important that these statistics be reliable. Therefore, we will examine **the reliability of OECD Health Statistics as far as private expenditure on health is concerned**.

All European countries endorse equity of access to health care for all people as an important policy objective. Private expenditure on health has an important bearing on the following policy issues: (i) free choice of health care provider; (ii) access to better quality of care and (iii) waiting time. The last issue, bypassing waiting lists for publicly-financed treatment, is out of scope. This thesis focuses on Bismarckian health care systems where waiting lists tend to be less of a problem than in Beveridgean national health systems.

We will focus on the two first issues: (i) **supplementary physicians' fees** buying free choice of physician and (ii) out-of-pocket payments buying **access to new health technologies**. New health technologies -health goods and services- which are not (yet) reimbursed by basic health insurance are accessible only for patients able and willing to pay out-of-pocket. In Belgium and France, access to certain physicians is similarly only possible for patients able and willing to pay supplementary fees.

When out-of-pocket expenditure represents a significant share of total expenditure on health, welfare can be increased by PHI. However, PHI covers only a relatively small proportion of private spending on health, less than 25 per cent in most EU Member States, except for France (65 per cent), Ireland (41 per cent), Luxembourg (33 per cent), the Netherlands (30 per cent) and Slovenia (51 per cent) (OECD Health Statistics 2017, figures for 2015). It appears that private insurers in Europe are not very successful in converting out-of-pocket expenditure into PHI.

National governments concerned about the accessibility and affordability of PHI tend to impose restrictive regulation on the operation of private health insurance markets. The question is: **in how far is restrictive regulation of PHI markets in accordance with EU free market principles?**

PHI can lead to welfare gains if the advantages of health insurance outweigh the disadvantages. Advantages of health insurance are: (i) the reduction of financial risk for the insured and (ii) access to health care that would otherwise be unaffordable. Disadvantages are: (i) loading costs and (ii) moral hazard. Unfortunately, many PHI products currently are suboptimal. The question is: **how can the design of PHI products be optimised?**

In the following sections, we will expand on each of the five above-mentioned issues that will be addressed in this thesis.

1.2. RELIABILITY OF OECD HEALTH STATISTICS

Since 2005, OECD, Eurostat and WHO have been jointly collecting expenditure and financing information from OECD and EU countries.

OECD Health Statistics on private and out-of-pocket expenditure on health provide important information for the different stakeholders in the health care system. For policymakers, it is important to know how much and what kind of care is being financed privately, and for determining whether there might be a problem with the accessibility of health care. Data on private and out-of-pocket expenditure are indispensable for health insurers. Basic health insurers need to be able to measure the effect of their reimbursement policy, while insurers offering PHI need as detailed information as possible about their potential market, which is made up of privately financed care. Finally, practitioners and patients need comprehensive clarification of the costs to be borne by the patient, since treatment decisions may well be influenced by cost issues.

The OECD states that it provides 'accurate, reliable and timely data on health spending that is comparable across OECD countries and over time' (OECD, 2015). Doubts about the reliability of the OECD data for private expenditure on general hospitals in Belgium have led us to critically examine Belgian official data on private health expenses.

Research questions:

1. *In how far are OECD Health Statistics on private expenditure on health for Belgium reliable?*
2. *What are the major obstacles to a correct estimation of private expenditure on health?*

1.3. SUPPLEMENTARY PHYSICIANS' FEES

A supplementary fee is an extra fee charged by health care providers on top of the tariff agreed upon by the health insurance system.[5]

Both in Belgium and in France, supplementary physicians' fees are a 'hot' issue. Physicians can charge supplementary fees in case of special demands made by the patient (e.g., a late-night consultation). In Belgium, any physician can charge supplementary fees for households whose taxable income exceeds 67,636 EUR per year (figure for 2017). Physicians who choose not to be bound by social security tariffs - 'sector 2' and 'non-conventioned' physicians in France and Belgium respectively- can charge supplementary fees to all patients in all circumstances. In Belgian hospitals, supplementary fees can be applied by any physician if the patient is staying in a private room.

Patients who are not willing or not able to pay supplementary fees may not be treated by the physician of their choice.

Table 2 shows that there is a huge span in private expenditure between a private room and a double or common hospital room in Belgium. The span can be explained through supplementary fees and -to a lesser extent- room charges, neither of which may be charged in a double or common room. In 2015, supplementary fees represented 61 per cent of private expenditure for a classic hospital stay in a private room (Mutualité Chrétienne, 2016).

5 In Belgium, the terms '*ereloonsupplement*' (Dutch) and '*supplément d'honoraires*' (French) are used for a fee charged on top of the official tariff set by the social security system. In France, the term '*dépassement d'honoraires*' is applied. In North America, the terms 'extra billing' and 'balance billing' are used.

Table 2. Average private expenditure for an admission in a Belgian hospital (EUR, 2015) (Source: Mutualité Chrétienne, 2016)

	Private room	Double or common room
Classic hospital stay (min. 1 night)	1463	278
Surgical one-day clinic	735	122
Non-surgical one-day clinic	437	25

For certain categories of self-employed medical specialists, supplementary fees constitute a substantial part of their income (see Table 3). Supplementary fees represent -on average- respectively 35 per cent and 32 per cent of the gross income of Belgian and French surgeons in hospitals.[6]

Table 3. Supplementary fees as a percentage of gross income of sector 2 physicians (France)/self-employed physicians (Belgium) providing inpatient care in 2010 (DREES, 2012; Swartenbroekx, 2012).

	France	**Belgium**
Specialism	**% of gross income**	**% of gross income**
Stomatology	45.6%	15.9%
Surgery	31.9%	34.7%
Gynaecology	29.5%	34.9%
Ophthalmology	25.3%	10.1%
Oto-rhino-laryngology	20.8%	12.3%
Anaesthesia	16.7%	31.5%
Paediatrics	16.7%	21.1%
Psychiatry	16.6%	4.2%
Gastro-enterology	11.6%	11.5%
Radiology	4.0%	13.4%
Cardiology	4.0%	15.0%
Pneumology	4.0%	5.8%

Both in Belgium and France, hospitals also benefit from supplementary fees. In most hospitals, physicians have to cede a certain percentage of their supplementary fees to the hospital to help finance overhead costs.

Expenditure on supplementary fees is increasing at a pace far exceeding the growth rate of total expenditure on health. So far, measures taken in Belgium and France to curb cost inflation of supplementary fees have not yet resulted in a stabilisation or a reduction of supplementary fees.

6 Only the income earned in hospitals has been taken into account. Supplementary fees charged outside of the hospitals are not included.

In this thesis, we calculate estimates for expenditure on supplementary fees in Belgium. We discuss figures on the cost (evolution) of supplementary physicians' fees in Belgium and France. Measures taken to contain costs are then evaluated. The added value of the supplementary fee system for physicians and patients is also investigated. Finally, the future of supplementary fees in Belgium and France is discussed.

Research questions:

3. *What is the cost (evolution) of supplementary physicians' fees in Belgium and France?*
4. *How can cost inflation of supplementary physicians' fees be contained?*
5. *What is the added value of supplementary physicians' fees?*
6. *Is a system of supplementary physicians' fees charged on top of social security tariffs sustainable?*

1.4. ACCESS TO NEW HEALTH TECHNOLOGIES

New health technologies come on the market at a rapid pace and -sometimes- at a huge cost. Providing access to new health technologies is a serious challenge for many countries with mandatory basic health insurance.

While mandatory basic health insurance generally covers a broad range of health technologies, new technologies may not be -readily- covered because of budgetary reasons or because there is (as yet) no unanimity about their evidence-based character or their medical necessity. National health authorities can decide not to cover a new health technology, even if the technology has been acknowledged by health technology assessment (HTA) centres and/or is covered by health insurers in other countries.

Today, the HTA Core Model is widely used for the assessment of new health technologies. The model enables effective international production and sharing of HTA results in a structured format (Lampe et al., 2009). The model emphasises the multidisciplinary nature of assessments, employing the following nine domains: (1) health problem and current use of technology, (2) description and technical characteristics of technology, (3) safety, (4) clinical effectiveness, (5) costs and economic evaluation, (6) ethical analysis, (7) organisational aspects, (8) patients and social aspects and (9) legal aspects.[7]

The fifth domain, 'costs and economic evaluation', is particularly important for the reimbursement of new health technologies by health insurance. Economic evaluation

7 The HTA Core Model is available at: https://www.eunethta.eu/hta-core-model/.

has been defined as a comparative analysis of alternative courses of action in terms of both their costs and consequences (Drummond et al., 2015). The aim of the costs and economic evaluation domain is to inform value-for-money judgements about health technologies with information about costs, health-related outcomes and economic efficiency (Canadian Coordinating Office for Health Technology Assessment, 1994). Five main types of economic evaluation can contribute to HTA: cost-effectiveness analysis, cost-utility analysis, cost-consequences analysis, cost-benefit analysis, and cost-minimisation analysis. Cost-effectiveness analysis (CEA) compares the costs and effects of at least two alternative technologies. The results of such analysis are generally expressed in the form of an incremental cost-effectiveness ratio (ICER). An ICER represents the estimated difference in costs between the comparators divided by the estimated difference in effect between the comparators. In an example where the effects of the comparators are measured in life years, the estimated ICER could be reported as the cost per life-year gained. The ICER approach is currently the most widely used outcome of economic evaluations. Whether a technology can be referred to as 'cost-effective' depends on its relation to any extant 'decision-makers' willingness-to-pay' or 'societal willingness-to-pay' for an additional unit of health outcome (so-called 'ICER threshold'). If one main aim of a health system is to maximise health-related outcomes given the resources available, a technology can be considered as being 'cost-effective', i.e. improving economic efficiency in health care, if its ICER estimate is lower than a threshold value (or threshold range). If the estimated ICER is higher than the threshold, the technology is not considered to be cost-effective and hence allocation of resources to this technology would be unlikely to increase economic efficiency in health care (Cleemput et al., 2009).

The issue of access to new health technologies can best be illustrated by some examples. The first example concerns several countries whereas the other examples relate to the situation in Belgium.

About one per cent of the population in Western countries is infected with the hepatitis C virus. Hepatitis C can lead to liver cirrhosis and liver cancer. Recently, new medication has come on the market which can eradicate the hepatitis C virus. However, since this medication costs 30000 to 50000 EUR per patient and about one per cent of the population is affected, reimbursement by mandatory health insurance in many countries is limited to patients already suffering from liver cirrhosis. People infected with the hepatitis C virus who want to avoid developing liver cirrhosis need to pay for the new medication out-of-pocket.

In Belgian hospitals, there are lists with out-of-pocket payments for well-defined health technologies that are available for the patient. Whereas standard treatment A is

covered by mandatory basic health insurance, for treatment B, applying a new health technology, one must pay the listed additional out-of-pocket payments. An example of a treatment which -between 2011 and 2014- needed to be paid for out-of-pocket is the trabecular metal hip (2500 EUR), which is used to replace failed hip implants. The use of trabecular metal increases implant stability and enables biologic in-growth, which can help lead to long-term fixation. An orthopaedic surgeon explained how he made the choice between a classic hip implant, paid for by mandatory basic health insurance, and a trabecular metal hip implant, to be paid for out-of-pocket: 'The trabecular metal hip implant option is discussed only with financially well-off patients. It is very awkward to discuss a treatment option with patients who cannot afford it.'

In case of an amputation of the leg above the knee, patients in Belgium can choose between (electro)mechanical and microprocessor-controlled prosthetic legs. The microprocessor-controlled prosthetic leg is the closest technology has come to natural walking. In Belgium, mandatory basic health insurance only reimburses electro-mechanical prosthetic legs. Patients who want a microprocessor-controlled prosthetic leg have to pay about 30000 EUR out-of-pocket. After 5 to 7 years, the prosthetic leg needs to be replaced.

Carotid artery stenting is a procedure that can be used to open a narrowed carotid artery. It involves placing a small, expandable tube called a stent in the narrowed artery. There are two carotid arteries-one on each side of the neck- that supply blood to the brain. These arteries can be narrowed and damaged by fatty deposits called plaque. If this plaque breaks open, it may form a blood clot, which could move to the brain and cause a stroke. Carotid artery stenting may improve blood flow to the brain and lower the risk of stroke. Carotid stents are not reimbursed by mandatory basic health insurance in Belgium. Carotid stents -which cost between 1000 and 1500 EUR- must be financed out-of-pocket by patients.

The last example concerns the latest developments in cancer treatments, where the ability to pay out-of-pocket can make an important difference. The MammaPrint test is a genomic test that analyses the activity of certain genes in early-stage breast cancer. The MammaPrint test can be used to help make treatment decisions based on the cancer's risk of recurrence within 10 years after diagnosis. Knowing if a woman has a high or low risk of early-stage breast cancer recurring might help women and their doctors decide if chemotherapy or other treatments to reduce risk after surgery are needed. The MammaPrint test is reimbursed by health insurers in the United States (e.g., Aetna) and in the Netherlands, but not by mandatory basic health insurance in Belgium. In Belgium,

patients need to pay 3000 EUR out-of-pocket for this test.[8] A Belgian patient reports being told by her physician that physicians are not allowed to discuss tumour genomic tests, which need to be paid for out-of-pocket, to avoid patients' having to refuse tests which they cannot afford.[9]

The Christian Mutuality is the largest 'sickness fund' in Belgium, providing mandatory basic health insurance but also offering PHI. In November 2017, the Christian Mutuality stated that PHI is a must in case of a hospitalisation, even when the patient does not choose a private room: 'Supplementary physicians' fees cannot be charged in a double room. However, the patient bill can still be high. Certain costs are not reimbursed by mandatory basic health insurance. For instance, certain hip implants, intraocular lenses and materials for fracture fixation. Costs can be high in a double room. These costs have to be paid for out-of-pocket.'[10] (Christian Mutuality, 2017)

Using Belgium and the Netherlands -two neighbouring countries- as case studies, we will discuss and analyse different options for policymakers to deal with new health technologies.

Research questions:

7. *Are new health technologies equally accessible for patients in Belgium and the Netherlands?*
8. *What can be the role of voluntary private health insurance in providing access to new health technologies?*

1.5. REGULATION OF PHI MARKETS

In the European Union (EU), PHI is, in principle, subject to free market rules and competition. As an exception, governments may impose rules restricting free competition when

8 Cf. Belgian newspaper article (2017) 'Ik moest tegen de volgende dag 3000 euro vinden, anders geen kankeronderzoek' (translation: I had to find 3000 EUR by the next day, or else: no cancer test), *Het Nieuwsblad*, 30 March 2017. Available at http://www.nieuwsblad.be/cnt/dmf20170330_02808104.

9 Cf. Belgian news magazine article (2014) 'Genen sturen de strijd tegen kanker: […] Ik kreeg te horen dat artsen [genoomtesten] zelfs niet mogen voorstellen, omdat men wil vermijden dat mensen een behandeling moeten weigeren omdat ze er geen geld voor hebben. […]', *Knack*, 21 May 2014.

10 'In een kamer voor twee of meer personen mogen inderdaad geen ereloon- en kamersupplementen aangerekend worden. Toch kan de factuur ook dan hoog oplopen. Want er kunnen wel bedragen worden aangerekend die niet worden terugbetaald door de ziekteverzekering en dus niet worden meegeteld voor de maximumfactuur. Dat zijn bijvoorbeeld niet-vergoedbare implantaten zoals bepaalde heupprothesen, sommige lenzen bij cataractoperaties of fixatiemateriaal bij botfracturen. [..] Deze kosten moet je dan volledig uit eigen zak betalen.'

PHI serves as a partial or complete alternative to health cover provided by the statutory social security system ('substitutive health insurance'). However, notwithstanding the EU's non-life insurance Directives' application to PHI, in some Member States governments have restricted the application of free market rules in the PHI market. In order to curb the -often high- premium rate increases under PHI contracts, a 'medical index' has been created by law in Belgium. Premium rates can only be increased in line with the consumer price index or the medical index.[11] Only when a PHI product is (expected to be) loss-making may the supervisory authority, the National Bank of Belgium, grant permission to increase premiums.[12] However, the question arises whether such regulation, restricting the free market, is in the best interest of consumers. For instance, the medical index cannot be negative, even if the cost evolution in health care were to be. Another issue is that a medical index of this sort could act as a disincentive for insurance companies to reduce costs, because they know that in the end cost increases will be covered by the medical index. In this way, the application of medical indices could even have an inflationary effect.

In Belgium, PHI mainly covers hospital care. About half of the money reimbursed by PHI relates to the cost of a stay in a private hospital room. Since the quality of care in a private room is no better than in a double or common room, it might be difficult to uphold the view that special protection from government is needed to secure access to private hospital rooms.

In France, a tax exemption is granted to PHI products which do not apply selective underwriting. It is not sure whether this is an ideal situation since selective underwriting is needed to counteract adverse selection to protect existing clients against free riders who abuse the insurance system.

Recent European Court of Justice (ECJ) case law has created uncertainty about the application of the free market principles outlined in the EU non-life insurance Directives. The ECJ has taken different views in two cases (Commission v. Slovenia (2012)[13] and DKV Belgium SA v. Association belge des consommateurs Test-Achats ASBL (2013)[14]) on the

11 A law introduced on 17 June 2009 restricted increases in premium rates for existing contracts to increases in the consumer price index or the medical index if and in so far as the evolution of the medical index exceeds that of the consumer price index (Article 204 Insurance Law). The medical index reflects the evolution of the patient bill. Because the medical index did not include a provision to revalorise ageing reserves, the medical index was annulled by the administrative court on 29 December 2011. By royal decree of 16 March 2016, a new medical index has been created, including -on top of the claims evolution- a provision of maximum 2 per cent to cover the revalorisation of ageing reserves.

12 Art. 204, §4 Insurance Law ('Loi du 4 avril 2014 relative aux assurances', *Moniteur belge*, 30 April 2014).

13 Case C-185/11, *Commission* v. *Slovenia* ecli:eu:c:2012:43.

14 Case C-577/11, *DKV Belgium SA* v. *Association belge des consommateurs Test-Achats ASBL* ecli:eu:c:2013:146.

question whether government intervention in setting the prices of PHI contracts is consistent with EU regulation. On the one hand, in its ruling of 26 January 2012 in Commission v. Slovenia, the Court concluded that Slovenia's rules on complementary health insurance did not comply with the EU non-life insurance Directives. The Court found that a number of provisions in the Slovenian Health Care and Health Insurance Act ('*Zakon o zdravstvenem varstvu in zdravstvenem zavarovanju*' ('zzvzz')) did not comply with some of the basic freedoms outlined in the EU's non-life insurance Directives. By contrast, by its ruling of 7 March 2013 in DKV Belgium SA, the Court upheld the system of restrictive price regulation of existing PHI contracts in Belgium. The Court accepted a requirement of prior notification and approval of proposed increases in premium rates in the Belgian context but not in the Slovenian context.

We will analyse the impact of the two differing ECJ rulings on the application of free-market principles on PHI markets in the EU. We will discuss the arguments made in favour and against restrictive regulation. Starting from the Belgian and Slovenian ECJ cases on price regulation in the PHI market, we will broaden the discussion to the question of the extent to which free market rules effectively apply to PHI.

Research questions:

9. *To what extent do free market rules effectively apply to voluntary private health insurance?*
10. *What is the future role of voluntary private health insurance within the framework of social health insurance systems in the European Union?*

1.6. OPTIMAL DESIGN OF PHI PRODUCTS

Since private expenditure on dental care is quite substantial in most EU countries, we have chosen to focus on complementary dental insurance to discuss the issue of optimal design of PHI products.

Health insurance is meant to protect against financial risk and to render access to health care that would otherwise be unaffordable. In the Netherlands, private dental insurance can be bought, which provides a cover limit of 250 EUR per year only. Such products are unlikely to provide financial security. In Belgium, France and the Netherlands, reimbursement of prosthetic dental treatment (e.g., implants, bridges and crowns) by most private dental insurance products is limited to 1000 EUR per year or less. These products do not really improve access to costly dental treatment such as implants. The cost of an implant is -on average- 2500 EUR. It is not exceptional that 4 implants are needed.

The risk of being confronted with a total cost of 10000 EUR, of which only 1000 EUR will be reimbursed, is unlikely to give the insured 'peace of mind'. PHI products offering (very) limited coverage do not protect against financial risk nor do they provide access to health care that would otherwise be unaffordable.

We develop a framework for optimal health insurance design. The current situation of complementary dental insurance in four European countries, Belgium, France, Germany and the Netherlands, is examined. We then look for potential explanations for the gap between the current offering of dental insurance products and an optimal design of dental insurance. We conclude with a discussion on how to improve dental insurance design.

Research questions:

11. *How can the gap between the current offer of dental insurance products and an optimal design of complementary dental insurance be explained?*
12. *How can current complementary dental insurance design be improved?*

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Note: Apart from the work of Sarah Thomson and Elias Mossialos and some other authors, there is little international literature on private expenditure on health and voluntary private health insurance. We have tried to use all available international literature. We have also extensively made use of policy documents.

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2. Reliability of OECD Health Statistics

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ABSTRACT

OECD Health Data are a well-known source for detailed information about health expenditure. These data enable us to analyse health policy issues over time and in comparison with other countries. However, current official Belgian estimates of private expenditure (as published in the OECD Health Data) have proven not to be reliable. We distinguish four potential major sources of problems with estimating private health spending: interpretation of definitions, formulation of assumptions, missing or incomplete data and incorrect data. Using alternative sources of billing information, we have reached more accurate estimates of private and out-of-pocket expenditure. For Belgium, we found differences of more than 100% between our estimates and the official Belgian estimates of private health expenditure (as published in the OECD Health Data). For instance, according to OECD Health Data private expenditure on hospitals in Belgium amounts to €3.1 billion, while according to our alternative calculations these expenses represent only €1.1 billion. Total private expenditure differs only 1%, but this is a mere coincidence. This exercise may be of interest to other OECD countries looking to improve their estimates of private expenditure on health.

2.1. INTRODUCTION

Health data have a central role to play in supporting stewardship and decision-making by both policy makers and other stakeholders (Poullier *et al.*, 2002a; Forde *et al.*, 2013; Rosenthal and Smith, 2014). OECD Health Data are a well-known source for detailed information about health expenditure. Since all OECD member states have to adhere to OECD's 'System of Health Accounts', OECD Health Data are being produced within the same framework by every member state (Orosz and Morgan, 2004). OECD Health Data are used to analyse health policy issues over time and in comparison with other countries (Oderkirk et al, 2013; Gerkens and Merkur, 2010; Keep, 2011). The results of these analyses can have far-reaching policy implications. OECD Health Data contain information, e.g. on health status, the number of health care providers and health care facilities, and on expenditure on health, both public and private. In this paper we focus on private expenditure on health including out-of-pocket expenses.

OECD Health Data on private and out-of-pocket expenditure on health are important for the different stakeholders in the health care system. For government and policy makers it is important to know how much and what kind of care is being financed privately, and for determining whether there might be problems with the accessibility of care. Data on private and out-of-pocket expenditure are also indispensable for health insurers, both basic and additional health insurers. Basic health insurers need to be able to measure the effects of their reimbursement policy, while insurers offering additional health insurance need as detailed information as possible about their potential market, constituted of privately paid care. Finally, practitioners and patients need comprehensive clarification of the costs to be borne by the patient, since treatment decisions may well be influenced by cost issues.

We distinguish four potential major sources of problems with estimating private health spending: interpretation of definitions, formulation of assumptions, missing or incomplete data and incorrect data.

The aim of this paper is to compare official Belgian estimates of private health expenditure (as published in the OECD Health Data) with alternative estimates. Current official Belgian estimates of private health expenditure (as published in the OECD Health Data) are not reliable mainly because hard data on private expenditure are not transparent. Using alternative sources of billing information, we have reached more accurate estimates of private and out-of-pocket expenditure. This approach may serve for some OECD countries to re-examine their sources and methodologies. For other countries, it may be irrelevant.

Definitions
- Health insurance:
  - o Basic health insurance: mandatory universal health insurance, organised by the National Institute for Health and Disability Insurance (NIHDI)[15] and the sickness funds;
  - o Additional health insurance: both private insurance companies and sickness funds offer voluntary additional health insurance;
- Private expenditure on health: sum of co-payments and supplements (see Fig. 1);
  - • Services covered by basic health insurance:
  - • Co-payment[16] = official tariff minus reimbursement by basic health insurance;
  - • Supplement = total fee minus official tariff ('supplemental fee')[17];
  - o Services not covered by basic health insurance:
  - • Supplement = total fee ('supplemental service');
  - o In this article, the three definitions are being used: 'supplemental fee', 'supplemental service' and 'supplement' (covering both supplemental fees and supplemental services).
  - o Belgium 2010: €9316 million private expenditure on health[18] = €1854 million co-payments[19] + €7462 million supplements;
- Out-of-pocket expenditure on health: private expenditure on health minus reimbursement by additional health insurance and minus reimbursement by non-profit institutions and corporations. Belgium 2010[20]: €9316 million private expenditure on health = €1519 million additional health insurance + €51 million non-profit institutions + €18 million corporations + €7728 million out-of-pocket expenditure on healtth.

<table>
<tr><td colspan="3">Total fee for service covered by basic health insurance</td></tr>
<tr><td colspan="2">Official tariff</td><td rowspan="2">Supplement (supplemental fee)</td></tr>
<tr><td>Reimbursement</td><td>Co-payment</td></tr>
<tr><td colspan="3">Total fee for service NOT covered by basic health insurance</td></tr>
<tr><td colspan="3">Supplement (supplemental service)</td></tr>
</table>

Fig.1. Definition of supplements (De Graeve *et al.*, 2007).

2.2. FOUR POTENTIAL MAJOR SOURCES OF PROBLEMS WITH ESTIMATING PRIVATE HEALTH SPENDING

We distinguish four potential major sources of problems with estimating private health spending: interpretation of definitions, formulation of assumptions, missing or incomplete data and incorrect data.

15 Rijksinstituut voor ziekte- en invaliditeitsverzekering (RIZIV) / Institut national d'assurance maladie-invalidité (INAMI).

16 We use the term 'co-payment' to refer to co-payments and co-insurance. Both are cost-sharing arrangements which require the individual covered to pay part of the cost of care. A co-payment is a fixed fee (flat rate) per item or service; in case of co-insurance the patient pays a fixed proportion of the total cost.

17 'Extra billing' and 'balance billing' are also being used for health care providers billing patients more than what the insurer pays for their services.

18 OECD Health Data 2013, figures for 2010.

19 *Source*: NIHDI.

20 OECD Health Data 2013, figures for 2010.

2.2.1. Interpretation of definitions

Since its publication in 2003, the OECD Manual 'A System of Health Accounts' (SHA) provides a common standard for data collection by the statistical offices (Schneider et al, 2010). SHA establishes a conceptual basis of statistical reporting rules and proposes a newly developed International Classification for Health Accounts (ICHA) which covers three dimensions: health care by functions of care (what kind of services and what types of goods are purchased?); providers of health care services (where does the money go to?); and sources of funding (where does the money come from?). The proposed accounts are designed to meet the needs of analysts of health care systems and policymakers. They provide a common framework for enhancing the comparability of data over time and across countries. OECD states that they are intended for use in international comparisons that include a broad range of countries with different ways of organising health care and its financing (OECD, 2000).

In 2011, an updated version of the OECD SHA Manual has been published (version 2.0). Version 2.0 has already been incorporated in the data submissions of some countries. So far, version 1.0 has been used for the Belgian submissions.

A narrow or broad interpretation of the definitions listed in SHA can give a totally different result in terms of private or out-of-pocket expenditure on health. This can lead to problems when comparing different countries. Private expenditure on homes for the elderly can illustrate this problem.

In Belgium, there are two types of homes for the elderly: homes for individuals requiring extended nursing care ('nursing homes')[21] and homes for individuals requiring limited care ('rest homes')[22]. For the Belgian figures, the choice has been made to include private expenditure for the first type of homes but not for the second type. There are two problems with this approach. First, although the SHA category 'nursing care facilities'[23] indeed is limiting its scope to 'individuals requiring nursing care', private expenditure on rest homes could be allocated to the SHA category 'community care facilities for the elderly'[24]. This category addresses 'persons unable to fully care for themselves and/or unwilling to live independently'. Second, in the OECD Health Data for Belgium, public expenditure on both types of homes for the elderly has been taken into account. However, so far as private expenditure is concerned, only nursing homes have been taken

21 'Maisons de repos et de soins' (MRS)/'Rust- en verzorgingstehuizen' (RVT).
22 'Maisons de repos pour personnes âgées' (MRPA)/'Rustoorden voor bejaarden' (ROB).
23 HP.2.1 : SHA classification of expenditure on health by provider ('Health Provider').
24 HP.2.3.

into account.[25] The question can be raised whether including only public expenditure on rest homes and not private expenditure does not result in an inconsistency between public and private expenditure on health. This example illustrates a problem with the interpretation of the SHA boundaries.

2.2.2. Formulation of assumptions

Certain assumptions are being made for the calculation of private expenditure on health and for the allocation of total private expenditure to the different (sub)sectors. A proxy can be used if no exact information is available. Items can be deducted or added in order to produce a more coherent picture.

It is important for these assumptions and methods to be transparent. Only when assumptions are transparent can they be criticised and improved. In this respect, we have had an excellent working relationship with the Belgian Federal Public Service Social Security responsible for producing the Belgian figures for the OECD Health Data.

An example can clarify this point. According to Belgian National Accounts, household consumption on health amounted to €10397 million in 2010 (= private expenditure on health). This amount needs to be allocated to the different functions and providers of SHA. National Accounts' estimates need some adaptations in order to be fit for use within the SHA framework.

A first limitation of National Accounts' estimates of household consumption is their not taking into account specific transfers from government to households for financing health care. Therefore, in order to avoid double counting, several amounts have to be deducted from the €10.4 billion. Payments made by the Flemish long term care insurance[26] and by the federal state[27] are deducted since they constitute income transfers from government to households (together €737 million). It is assumed that households spend these transfers completely on the consumption of health care services.

Secondly, co-payments (€2035 million), reimbursement by additional health insurance (€1519 million) and the money granted by the social fund of the Belgian Railways (€18

25 It has been argued that medical care in rest homes being limited, private expenditure in rest homes -i.e. the 'lodging'component (bed and meals)- cannot be taken into account, according to the SHA manual.

26 Flemish long term care insurance (€280 million) ('Vlaamse zorgverzekering').

27 'Allocation pour l'aide aux personnes âgées/Tegemoetkoming voor hulp aan bejaarden' (€454 million); 'Hulp van derden/Aide d'une tierce personne' (€3 million).

million) are to be deducted for it is known how these payments have to be allocated to the different health care functions and providers (together €3572 million).[28]

Finally, the remaining amount, €6088 million, is allocated to the different functions and providers using co-payments charged in basic health insurance as the distribution key.

An important problem with this methodology is that most of these deductions are made from the total figure, €10.4 billion, and not from the figure for the sector the deduction is pertaining to. The way private expenditure on homes for the elderly is calculated, can illustrate this point. Actually, only the money paid to institutionalised elderly by government, by the Flemish community[29] and by the federal state[30] should be deducted from the National Accounts' estimate for private expenditure on homes for the elderly (along with 9% deducted for 'general expenses' in elderly care). Although co-payments for nursing home services are almost non-existent and additional health insurance is not reimbursing homes for the elderly, a proportional part of total co-payments and of total reimbursement by additional health insurance has been deducted from the National Accounts' figure for private expenditure on homes for the elderly, resulting in an important underestimation -about one third- of private expenditure on homes for the elderly.

Another problem with using co-payments as the distribution code for supplements is that there is not always a proportional relationship between co-payments and supplements. Certain (sub)sectors have large co-payments but only small supplements while other (sub)sectors are characterised by large supplements and (almost) no co-payments.

In 2010, OECD published a Health Working Paper with best practices of calculation techniques and recommendations on how to estimate private expenditure on health (Rannan-Eliya and Lorenzoni, 2010). National Accounts' figures on household consumption can be a starting point for the calculation of private expenditure on health but adjustments need to be made because of sampling and non-sampling errors.

2.2.3. Missing or incomplete data

Detailed information about private expenditure on health is not always readily available since most sources of information are private and data are usually not collected at an aggregate level.

28 *Source*: Belgian Federal Public Service Social Security.
29 Flemish long term care insurance (€111 million) ('Vlaamse zorgverzekering').
30 'Allocation pour l'aide aux personnes âgées/tegemoetkoming voor hulp aan bejaarden' (€318 million).

Private expenditure refers to expenditure by private financing agents which consist of four types: corporations, households, private health insurance schemes, and non-profit institutions serving households (Rannan-Eliya, 2010). In Belgium, the role of non-profit institutions (€51 million) and corporations (€18 million) is very limited. As already stated, additional health insurance is financing €1.5 billion and €7.7 billion is being paid out-of-pocket by the households.[31]

Detailed information from additional health insurance sources is available but often not publicly accessible. Additional health insurance covers private expenses. With 74% of the Belgian population being covered by additional health insurance,[32] extrapolation of data from additional health insurance can give a good estimate of private expenditure on health.

Question is if and how information from additional health insurance sources can be made publicly available? In many countries, a multitude of actors is active in the field of additional health insurance. Therefore, the collection of data at an aggregate level could be very useful. However, question is whether complete transparency might disturb fair competition amongst private insurers? This could especially be the case in a market with one large insurer and several smaller players. In such a market, detailed information from the large insurer might be very helpful for the smaller players. If data were collected at an aggregate level, the competition issue would be less important. Maybe, the professional associations of private insurers could collect all data and publish them at an aggregate level without revealing the contribution of the different insurers.

Detailed information on private and out-of-pocket expenditure can also be obtained from professional associations of providers and from the industry (e.g. industry market data on retail sales of pharmaceuticals, vision products and hearing aids). Problem with these sources is that the data often are not publicly available but only on demand. Here too, the competition issue is the main reason for the lack of transparency.

Examples of missing data in the Belgian market are the figures on private expenditure for psychologists and dietitians. No aggregate data are available. The professional associations have made an estimate based on the number of providers, the average number of sessions and the average fee charged. According to this methodology, we get a total

31 OECD Health Data 2013 (figures for 2010).

32 In 2010, out of a total of 11 million Belgians, 5,4 million carried a voluntary additional health insurance with a private insurance company and 2,7 million with a sickness fund (*sources:* 'Assuralia' [trade organization of insurance companies active in Belgium], Control Office for the Sickness Funds ['Controledienst voor de ziekenfondsen/Office de contrôle des mutualités']).

of €230 million private expenditure on self-employed, registered clinical psychologists and of €60 million on self-employed dietitians in Belgium.

Incomplete data can also be a source of error. An example from the Belgian market are vision products. The official OECD Health Data figures list €3 million as private expenditure on vision products. This figure pertains solely to co-payments for vision products that are reimbursed by basic health insurance (€23 million). Figures on total turnover in the market of vision products are not publicly available. Information from the industry learns that total turnover amounts to €475 million. This is a good example of how lack of information can result in distorted results.

The above mentioned 2010 OECD Health Working Paper No. 52 lists a number of issues where reporting may be difficult and proposes certain estimation techniques to fill data gaps.

2.2.4. Incorrect data

Incorrect data are the final type of problems. Normally, this type of problems will not be very common. Creating transparency can avoid this problem since people will notice mistakes and report them.

Sometimes, incorrect data can be a result of dated information. It is therefore important to update sources on a regular basis. For instance, for the production of the Belgian figures for private expenditure on homes for the elderly, a ratio of 40% nursing homes and 60% rest homes has been used. However, in 2010, there were 49.4% nursing homes. Since in the OECD Health Data only private expenditure on nursing homes has been taken into account, the ratio applied results in an underestimation of private expenditure on homes for the elderly.

As part of the routine data submissions to the OECD, countries are asked to submit a metadata file to identify data sources, breaks in series, data gaps and estimation techniques. The content of the metadata files is published in the OECD data base.

2.3. RELIABILITY OF ESTIMATES OF PRIVATE HEALTH SPENDING: BELGIUM AS A CASE STUDY

2.3.1. OECD Health Data

Health expenditure data are being collected, validated and published in a joint effort by OECD, WHO and Eurostat. These organisations do not produce any health expenditure

estimates themselves. Estimates are submitted under the responsibility of the national authorities. For Belgium, estimates on health expenditure are being produced by the Belgian Federal Public Service Social Security.[33] In this paper, we analyse the reliability of these estimates, which are being produced by the Belgian authorities and published by the OECD Health Data.

So far, there is no legal obligation for countries to produce health data. By 2016, it will be mandatory for European Union member states to submit a well-defined set of health expenditure aggregates.

2.3.2. SHA framework

In Belgium, as in most OECD countries, publicly available information about private expenditure on health is limited. Therefore, many countries need to turn to different kinds of sources, ranging from public administration data to surveys. Within the Belgian SHA framework, estimates of private expenditure on health are based on National Accounts' estimates on the one hand and public administration data on the other hand. National Accounts' estimates of household consumption of health care and long term care services are a central reference for the Belgian approach.

The Belgian figures for the OECD Health Data are not based on household budget surveys. It is a well-known problem that data from surveys on private and out-of-pocket expenditure on health are prone to measurement errors (Heijink *et al.*, 2011; Xu *et al.*, 2009).

National health accounts (NHA) are a powerful tool that can be used to improve the capacity of decision makers to identify health sector problems and opportunities for change and to develop and monitor reform strategies (Berman and Cooper, 1995).

The United States introduced the concept of Health Accounts formally in 1966, followed by France in 1972. The OECD began to use the concept in a few countries in 1976 (Poullier *et al.*, 2002b). The first table of expenditure on health for the member states of the World Health Organization (WHO) was reported in annex 8 of the World Health Report 2000 (figures for 1997) (World Health Organisation, 2000).

The framework for WHO's NHA reporting is based on the System of National Accounts (SNA) of the United Nations (Poullier *et al.*, 2002b). OECD too states that methodological

33 Federale Overheidsdienst Sociale Zekerheid/Service Public Fédéral Sécurité Sociale. This study has been made in close collaboration with this agency.

compatibility with SNA accounting rule is a prerequisite for health accounts meeting the basic requirements of comparability over time, between countries and with overall economic statistics (OECD, 2000).

Schneider holds that from a macroeconomic perspective, the indicators presented by SHA are incomplete. Health Satellite Accounts (HSA), which are fully integrated into SNA, should be able to answer questions such as: What is the gross value added of the health economy? What is the productivity of the branches of the health economy? What are the import and export flows and as a result the trade surplus (Schneider *et al.*, 2010)? However, SHA version 2.0 (2011) enables countries to measure -among other things- total health workforce, value added of health providers and the export and import of medical goods and services.

In order to reduce the burden of data collection for the national authorities and to increase further harmonisation across national health accounting practices, as of 2006 there is a joint OECD-Eurostat-WHO SHA data collection based on a joint questionnaire. Advantages of this joint effort are the decrease of the burden of data reporting and the publication of consistent figures. It is important to note that WHO, Eurostat and OECD are aware that the estimates of private expenditure on health vary in their reliability across countries and categories, depending on the availability and quality of national information (Poullier *et al.*, 2002b). Estimating private expenditure, and specifically out-of-pocket spending, continues to present difficulties in many countries and is typically the largest source of error in estimates of national health spending (Mohanty and Srivastava, 2013; Chawla *et al.*, 1998). The estimation difficulties not only frequently undermine the credibility of the health accounts, with the result that policy-makers may doubt the validity of the resulting policy implications, but also make international comparisons extremely problematic (Rannan-Eliya, 2010).

2.3.3. Alternative calculations based on billing information

In order to review OECD Health Data's estimates for Belgium, we have been using publicly available information as well as information from professional associations and companies.

Every year, Christian and Socialist sickness funds publish a study about private expenditure on hospitals. 'Assuralia', the trade organisation of insurance companies active in Belgium, publishes data -not always publicly available but available for its members- on expenditure by additional health insurance. The same goes for the 'Office of control of the sickness funds' ('Office de contrôle des mutualités/Controledienst voor de ziekenfondsen'). Several professional associations and companies -mostly market leaders

within their sector- have provided us with figures about their sector (e.g. dietitians, dermatologists, ophthalmologists, psychologists, 'Pearle'[34] for optical glasses and other vision products; 'Lapperre'[35] for hearing aids). Finally, we have been able to use data from 'DKV Belgium'[36], the market leader for private additional health insurance.

Unfortunately, this information is not always readily available for the state agencies producing health accounts or household consumption estimates. This poses a problem. The methodological framework for the data collection for the OECD Health Data does not exclude alternative calculations. On the contrary, transparency of methodology should encourage data sources to be identified. However, methodologies must be robust such that data are consistently available to the authorities over time and meet the definitions and quality criteria.

For the alternative calculation of private expenditure on health, we have been using the same framework and definitions used by the Belgian Federal Public Service Social Security, producing the official Belgian figures for the OECD Health Data (SHA version 1.0). The important differences between the alternative calculation and the official Belgian figures can be explained by the different data sources and estimation techniques used.

2.3.3.1. Supplemental fees

Information about supplemental fees in hospitals is more easily available, as supplemental fees in hospitals are regulated and subject to limitations based on the type of room. Sickness funds have detailed billing information from hospitals (including information on the supplemental fees charged).

This is not the case for supplemental fees charged in an ambulatory setting. We have been able to search the databases of 'DKV Belgium' for information on these ambulatory supplemental fees.[37] About 20% of what 'DKV Belgium' reimburses, pertains to ambu-

34 Pearle is the Belgian market leader for vision products (www.pearle.be).

35 Lapperre is the Belgian market leader for hearing aids (www.lapperre.be).

36 Deutsche Krankenversicherung Belgium ('DKV Belgium'), a private insurance company, is the market leader in Belgium for additional health insurance (www.dkv.be). About 1.8 million Belgians have taken out an additional health insurance contract with 'DKV Belgium'.

37 For the alternative calculation of private expenditure for providers of ambulatory health care, we have been using figures about supplemental fees coming from 'DKV Belgium'. We are aware of the fact that there may be some bias as to these figures. People carrying additional health insurance may be less price-sensitive and health care providers knowing that a patient is additionally insured may charge higher prices. However, contrary to hospital care, additional coverage for ambulatory care is not widespread in Belgium. Providers of ambulatory health care generally do not take into account the possibility that a patient might be carrying additional coverage for ambulatory care. Anyway, there are no hard data available about higher prices being charged for ambulatory care for patients carrying additional health insurance. Additional health insurers try to reduce upward pressure on prices by certain measures such

latory care. Supplemental fees are charged by physicians, dentists and other health practitioners such as physiotherapists. A supplemental fee is a supplement for a service, charged by the practitioner on top of the official tariff set out by basic health insurance.

Sickness funds do not systematically have this information about supplemental fees at their disposal, since practitioners are not obliged to give information on supplemental fees to the sickness funds and are indeed reluctant to do so.

We have been using information from 1143257 services billed for ambulatory care and sent to 'DKV Belgium' for reimbursement in 2012 and 2013 (with among others 747,000 acts referring to physicians, 87000 to dentists and 142000 to physiotherapists).

We have used the available information on supplemental fees to calculate private expenditure on ambulatory care provided by physicians, dentists and other health practitioners. Supplemental fees are expressed as a percentage of reimbursement by basic health insurance. Therefore, we have multiplied these percentages with total reimbursement by basic health insurance.

Supplemental fee percentages represent a weighted average of a certain (sub)sector. Every (sub)specialism has a supplemental fee percentage. For calculating the average of a group of (sub)specialisms the weight of each (sub)specialism has been taken into account.

2.3.4. Official Belgian estimates (as published in the OECD Health Data) versus alternative calculations

We have made a comparison of current official Belgian estimates of private health expenditure (as published in the OECD Health Data) with estimates based on alternative sources and calculations.

In order to analyse private health expenditure estimates, we applied the methodology of the International Classification of Health Accounts: sources of funding (HF) and providers of health care services and goods (HP) giving an insight in where the money comes from (HF)[38] and where the money goes to (HP)[39].

as co-payments and price negotiations with providers. We assume that the upward pressure of additional health insurance on supplemental fees is limited (certainly so far as ambulatory care is concerned). Anyway, it might be recommended to consider these percentages of supplemental fees for ambulatory health care as 'ceiling' percentages, real supplemental fees possibly being lower.

38 HF: 'health financing', expenditure on health by source of funding.

39 HP: 'health provider', expenditure on health by provider.

We will be focusing on some of the most significant differences between the official estimates (as published in the OECD Health Data) and the alternative calculations based on billing data from the health care sectors: general hospitals (HP.1.1), nursing care facilities (homes for the elderly) (HP.2.1) and community care facilities for the elderly (HP.2.3), all other residential care facilities (residential care for the disabled) (HP.2.9), offices of other health practitioners (such as physiotherapists and psychologists) (HP.3.3) and vision products (HP.4.2).

Estimates for the other providers are listed in Table 1.

Unless otherwise specified, all figures pertain to the year 2010.

2.3.4.1. Hospitals: €1.1 billion versus €3.1 billion (Table 1)

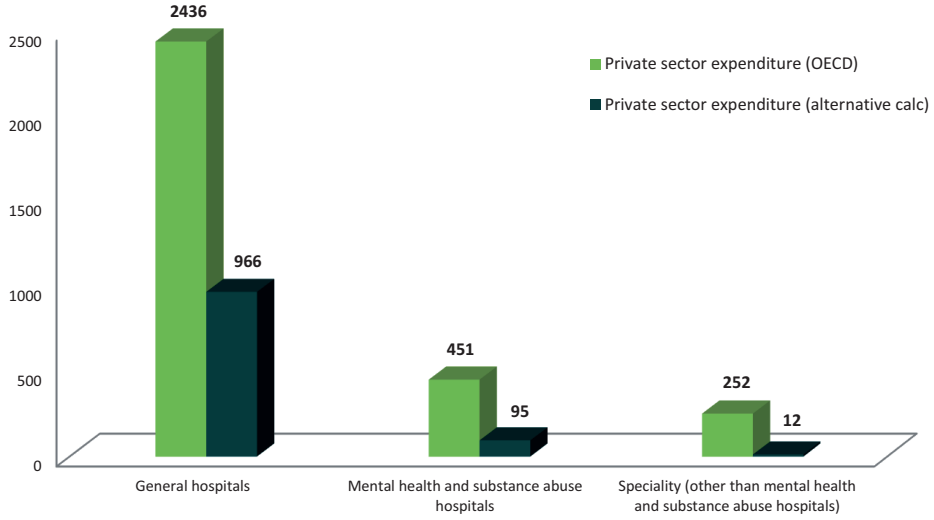


Fig. 2. Private expenditure in hospitals in Belgium 2010 (million €).

2.3.4.1.1. General hospitals[40]

According to OECD Health Data private expenditure amounted to €2436 million in 2010 (Fig. 2).

However, a study of hospital bills is putting forward a figure of €966 million only (Fig. 2). Every year, Christian and Socialist sickness funds, together representing 71.3% of Belgian population, publish a study on private expenditure on inpatient care in general hospitals (Christelijke Mutualiteit, 2011; Socialistisch Ziekenfonds, 2011). An extrapolation

40 HP.1.1.

of their findings to the entire population results in private expenditure on general hospitals totaling €946 million and €985 million respectively.[41] The somewhat lower figure of the Socialist sickness fund might be explained by the socio-economic profile of the members of the Socialist sickness fund being lower than that of the Christian sickness fund, probably resulting in less supplemental fees being charged. Conclusion is that private expenditure on inpatient care in general hospitals amounted to an average of €966 million in 2010 (including €119 million for day care).

According to OECD Health Data, out-of-pocket expenditure in general hospitals represented €1611 million in 2010. This figure is in strong contradiction with the following calculus. Additional health insurance provided by private insurance companies reimbursed a total of €508 million[42] of private expenditure in general hospitals. Additional health insurance provided by sickness funds reimbursed a total of €201 million.[43] Thus -in general hospitals- private expenditure (€966 million) minus reimbursement by additional health insurance (€709 million) equals €257 million out-of-pocket expenditure.

2.3.4.1.2. Mental health and substance abuse hospitals[44]

In Belgium, psychiatric hospitals take care of mental health and substance abuse problems. In 2010, private expenditure for psychiatric hospitals totaled €95 million (alternative calculation)[45], compared to €451 million listed in the OECD Health Data (Fig. 2).

2.3.4.1.3. Specialty hospitals[46]

OECD Health Data for 2010 reported €252 million private sector expenditure on specialty hospitals [47], and €92 million general government expenditure. The calculation of the private expenditure figure is based on the National Accounts' data for private household

41 In 2010, the Christian sickness fund covered 41.8% of the Belgian population and the Socialist sickness fund 29.5% (*source*: NIHDI).

42 In 2010, payments by additional health insurance provided by private insurance companies represented €635 million. With about 20% of this figure pertaining to ambulatory health care and psychiatric hospitals, €508 million is related to general hospitals. *Source*: 'Assuralia' (trade organisation of insurance companies active in Belgium).

43 Figure for 2009. We estimate that 80% of payments made by additional health insurance provided by sickness funds pertain to general hospitals (80% of €251 million). *Source*: Control Office for the Sickness Funds, annual report 2010.

44 HP.1.2.

45 In 2010 there were approximately 3.8 million hospital days in psychiatric hospitals (*source*: Belgian Federal Public Service for Public Health. FOD Volksgezondheid, veiligheid van de voedselketen en leefmilieu, directoraat-generaal organisatie van de gezondheidszorgvoorzieningen (2011). Organisatie en financiering van de geestelijke gezondheidszorg in België). Standard co-payment per hospital day amounted to approximately €20 in 2010 (*source*: NIHDI). Supplements for a private room varied from €5 to €50 per day in 2010 (*source*: 'DKV Belgium'). Since private rooms are not that common in psychiatric hospitals, we assume €25 private expenditure per hospital day to be a fair estimate.

46 HP.1.3.

47 E.g. the multiple sclerosis clinic in Melsbroek or the Belgian Sea Institute for Orthopedics in Ostend.

expenditure on hospitals and assimilated care. In our alternative calculations, private expenditure on revalidation taking place in general hospitals (= the bulk of revalidation) is comprised in the figure for general hospitals. Since no other data are available, we assume that private expenditure in specialty hospitals resembles private expenditure in general hospitals.[48] This benchmark gives us an estimate of €12 million private expenditure on specialty hospitals (compared to the €252 million listed in the OECD Health Data).

2.3.4.1.4. Conclusion

Based on effective billing practices in hospitals, we propose an estimate of €1073 million private expenditure instead of the €3139 million listed in the OECD Health Data. The high figure originates from National Accounts' overestimation of private expenditure in hospitals. Uncertainty remains, however, as to the reasons for this overestimation. Erroneous assumptions in the calculations based on National Accounts' data may be an important factor (e.g. possibly double counting of reimbursement by additional health insurance). The inclusion of non-health care related expenditure constitutes another potential source of error.

2.3.4.2. Nursing and residential care facilities: €2.0 billion versus €0.4 billion (Table 1)

When comparing OECD Health Data estimates with our own estimates, major differences come to light. These dissimilarities can be explained by the nature of available data on health-related household consumption, as well as by the methodological choices made. We will look at the differences more closely here.

2.3.4.2.1. Nursing care facilities (nursing homes for the elderly)[49]

Data on public and private expenditure for 'nursing care facilities' listed in the OECD Health Data for Belgium refer to homes for the elderly only.

In Belgium, there are two types of homes for the elderly: homes for individuals requiring extended nursing care ('nursing homes')[50] and homes for individuals requiring limited care ('rest homes')[51].

48 In general hospitals, the ratio of private expenditure to public expenditure is 13.17% (€966 million/€7332 million). When applying this ratio to specialty hospitals we get a total of €12 million private expenditure. Co-payments for specialty hospitals amounted to €4 million in 2010. In general hospitals, co-payments represent approximately 36% of total private expenditure. When applying this ratio to specialty hospitals, we get a total of €11 million private expenditure.

49 HP.2.1.

50 'Maisons de repos et de soins' (MRS)/'Rust- en verzorgingstehuizen' (RVT).

51 'Maisons de repos pour personnes âgées' (MRPA)/'Rustoorden voor bejaarden' (ROB).

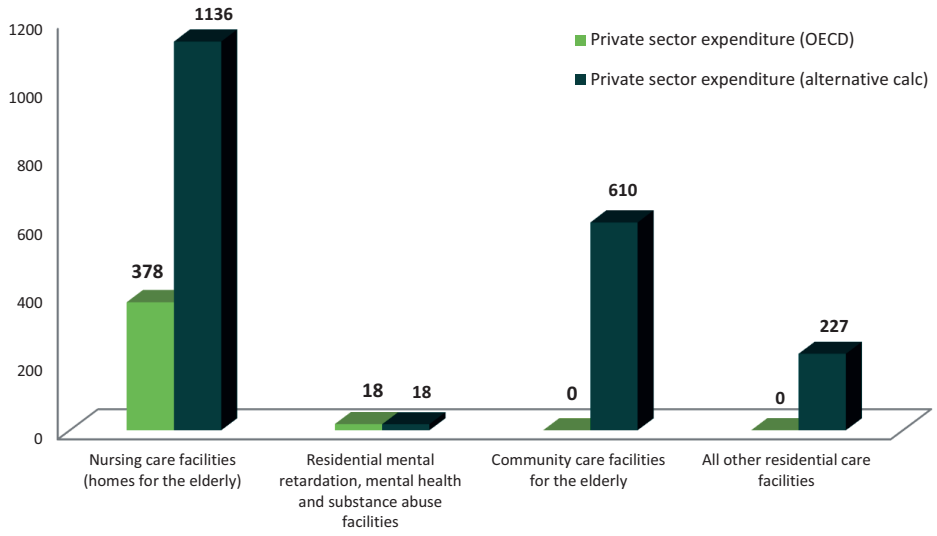


Fig. 3. Private expenditure in nursing and residential care facilities in Belgium 2010 (million €).

National Accounts' data indicate that, in 2010, private expenditure on homes for the elderly totaled €2391 million. 9% of this total is deducted for 'general expenses' in homes for the elderly (hairdresser, etc.). If we deduct this 9%, as well as the money transferred to institutionalised elderly by government[52], we get a total of €1747 million private expenditure on inpatient long term care for the elderly.

However, OECD Health Data are listing only €378 million (Fig. 3).

The difference can be explained by the methodology applied for the production of the OECD Health Data for Belgium. Although co-payments are practically non-existent in homes for the elderly, a proportional part of total co-payments in Belgian health care has been deducted from the National Accounts' figure for private expenditure on homes for the elderly. This is the first reason why the OECD figure is an underestimation (when comparing with total private expenditure on homes for the elderly).

52 Transfer by the Flemish community (Flemish long term care insurance; 'Vlaamse zorgverzekering') (€111 million): in 2010, 71412 people got a montly allowance of €130 for residential care (total: €111402720) (cf. http://www.zorg-en-gezondheid.be/Cijfers/Vlaamse-zorgverzekering/Lopende-dossiers-tenlastenemingen/ [accessed 10.02.14]). Transfer by the federal state ('allocation pour l'aide aux personnes âgées / tegemoetkoming voor hulp aan bejaarden') (€318 million): OECD Health Data state that 70% of the allowance for aid to the elderly is going to residential care. In 2010, €317.8 million out of a total of €454.2 million can be allocated to residential care. (cf. http://www.handicap.fgov.be/sites/handicap.fgov.be/files/explorer/nl/overzicht-cijfers-2010.pdf [accessed 10.02.14]).

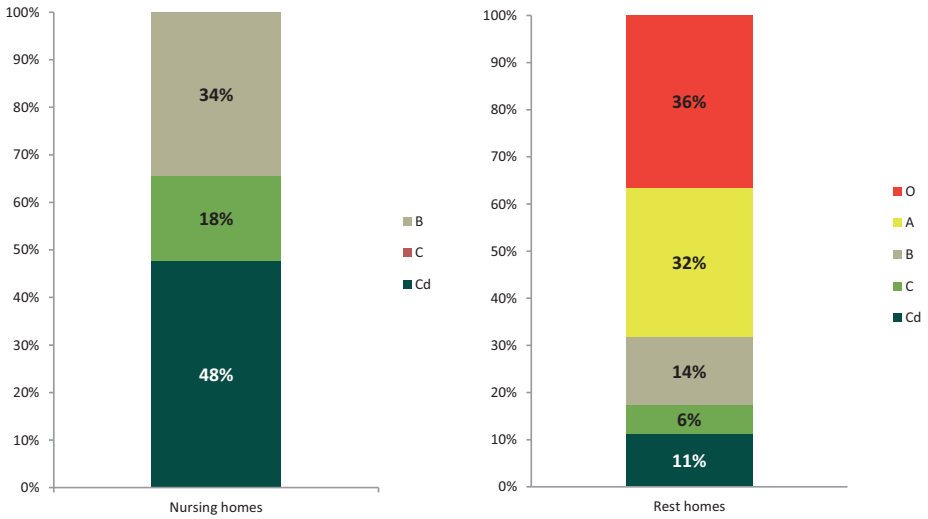
The second reason is that, for the OECD Health Data, only private expenditure on nursing homes for the elderly[53] is considered to be expenditure on health. Expenditure on rest homes for the elderly[54] is not being considered expenditure on health, based on the assumption that the medical component is limited since patients staying in rest homes require little or no nursing care. Private expenditure covers mainly the 'lodging' component of a stay in a home. SHA methodology states that, in contradiction to hospital stays, where the 'lodging' (bed and meals) is to be included in health expenditure figures, 'lodging' cost in homes only is to be considered as health expenditure in so far as the provision of health care exceeds the provision of so-called 'social' care. In Belgium, the choice has been made to only include private expenditure on nursing homes for the elderly in the OECD Health Data for Belgium, due to the relative importance of 'medical' care provided in nursing homes as opposed to rest homes.

The third reason concerns the number of nursing home beds. OECD Health Data apply a ratio of nursing home beds representing 40% of total beds in homes for the elderly, whereas this ratio is on the rise and attained 49.4% in 2010.[55]

When we have a look at the degree of dependency of residents in nursing homes for the elderly, we find that 34% is moderately dependent (category B) and 66% is highly dependent (category C or Cd) (48% being demented residents) (Fig. 4, left column). In rest homes, 36% is completely independent (category O), but the other 64% is physically or mentally dependent (32% low dependent and 31% moderately and highly dependent) (Fig. 4, right column).[56] With 64% of the residents in rest homes being dependent, there is a strong argument against the view that only private expenditure in nursing homes should be included in OECD Health Data and not private expenditure in rest homes. Including private expenditure for the moderately and highly dependent in the OECD Health Data for Belgium might also be in line with using the (Instrumental) Activities of Daily Living criteria (IADL) to distinguish between 'health care' and 'social care' (OECD, 2000).

Contrary to the €378 million OECD Health Data figure, on this basis, we calculate €862 million for private expenditure on 'inpatient long term nursing care' for the elderly (when considering only nursing homes). When adding up the medium and high dependent staying in rest homes, we get €1136 million (Fig. 3).

53 'Maisons de repos et de soins' (MRS)/'Rust- en verzorgingstehuizen' (RVT).
54 'Maisons de repos pour personnes âgées' (MRPA)/'Rustoorden voor bejaarden' (ROB).
55 In 2010, 61966 patients stayed in a nursing home bed and 63596 in a rest home bed. *Source*: NIHDI.
56 *Source*: NIHDI, situation on May 31, 2010.



O - Physically and mentally completely independent
A - Physically dependent for bathing and/or dressing, or
- Mentally dependent (disoriented in time and space), but physically completely independent
B - Physically dependent for bathing, dressing, transfers and/or toilet visits or,
- Mentally dependent (disoriented in time and space) and physically dependent for bathing and/or dressing
C - Physically completely dependent (bathing, dressing, transfers, toilet visits, feeding and/or incontinence)
Cd - Physically and mentally completely dependent (demention)

Fig.4. Degree of dependency of residents in homes for the elderly in Belgium 2010 (NIHDI)

Since moderately and highly dependent residents are staying in nursing homes and as nursing homes are fully taken into account for producing the OECD Health Data figures for Belgium, we would suggest taking into account as well the moderately and highly dependent residents in rest homes.

Conclusion is that instead of the €378 million listed in the OECD Health Data, we put forward a figure of €1136 million for private expenditure on nursing care facilities for the elderly (Fig. 3). The discrepancy between the two figures is due to the interpretation of definitions, the formulation of assumptions and the use of incorrect data.

2.3.4.2.2. Community care facilities for the elderly (rest homes)[57]

In 2010, independent or low dependent residents in rest homes for the elderly spent a total of €610 million on private expenditure.[58]. Pursuant to the SHA definition, we

57 HP.2.3.

58 €1.747 billion (total private expenditure on inpatient long term care for the elderly) minus €1.136 billion (private expenditure on nursing care facilities for the elderly).

believe that elderly staying in homes but needing only little assistance, could rightfully be categorised under 'community care facilities for the elderly'. Given the argumentation above, while OECD Health Data are listing €0 for this item, in our view, €610 million private expenditure should be added (Fig. 3).

2.3.4.2.3. Residential care for the disabled[59]

In the OECD Health Data for Belgium, public expenditure on 'all other residential care facilities' comprises residential care for the disabled and medical care in prisons. Since data on private expenditure on health in prisons is lacking, we are left with no choice but to limit our 'alternative' calculations to private expenditure on residential care for the disabled. Aggregate figures on private expenditure on residential care for the disabled not being available, we have made an estimation, based on partial, publicly available figures.[60] Actually, we estimate that private expenditure totaled €227 million in 2010.[61] As a matter of fact, this total is only taking into account the official co-payments[62] born by the disabled. Expenditure for care not provided by government has not been taken into account. While OECD Health Data are listing €0.3 million for this item, we suggest €227 million to be listed in 2010 for private expenditure on residential care for the disabled (Fig. 3).

2.3.4.3. Offices of other health practitioners: €0.7 billion versus €0.2 billion (Table 1)

According to OECD Health Data, total expenditure on providers of ambulatory health care[63] amounted to €2991 million in 2010 while alternative calculations resulted in a total of €3420 million (Table 1). Fig. 5 provides us with a detailed overview. Alternative calculations show that private expenditure represented €1243 million for physicians, €592 million for dentists, €293 million for medical and diagnostic laboratories (medical imaging and clinical biology) and €82 million for providers of home health care (nursing). In this context, it is appropriate to focus on the 'offices of other health practitioners'[64], health practitioners other than physicians and dentists (e.g. physiotherapists, psychologists, dietitians).

59 HP.2.9: 'all other residential care facilities'. In the OECD Health Data for Belgium, public expenditure on 'all other residential care facilities' comprises residential care for the disabled and medical care in prisons.

60 Question nr. 114 in Flemish Parliament on 6 December 2012 (http://www.vlaamsparlement.be/Proteus5/showSchriftelijkeVraag.action?id=761812 [accessed 10.02.14]); Zorgregierapport 31 december 2010 (http://www.vaph.be/vlafo/view/nl/464335-Zorgvragen.html [accessed 10.02.14]); Eigen financiële bijdrage VAPH 2010 (http://www.vaph.be/vlafo/view/nl/3994560 [accessed 10.02.14]).

61 This estimation has been validated by the authorities (cf. e-mail dd. May 30, 2013, Ritje Pauwels, advisor Flemish Minister Jo Vandeurzen).

62 'Eigen financiële bijdrage'.

63 HP.3.

64 HP.3.3.

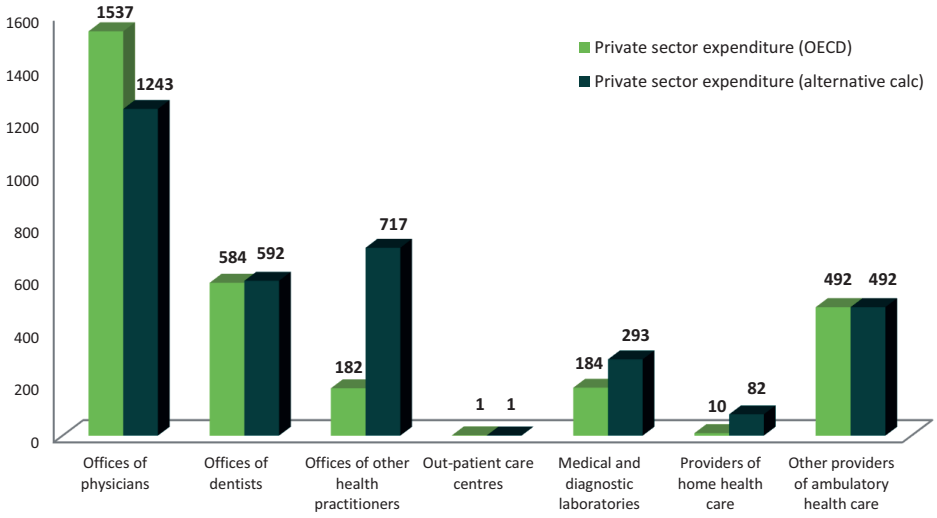


Fig. 5. Private expenditure for providers of ambulatory heath care in Belgium 2010 (million €).

OECD Health Data give us a figure of €182 million for private expenditure on ambulatory health care provided by health practitioners, other than physicians and dentists, in 2010 (Fig. 5).

We performed a calculus based on data from basic health insurance (NIHDI) and from additional health insurance ('DKV Belgium'). It should be emphasised that -to a large extent- these 'other health practitioners' cover activities not reimbursed by basic health insurance. Publicly available information about these activities is therefore limited.

Public expenditure represented €987 million in 2010 (Fig. 6).[65]

Private expenditure consists of co-payments and supplements. On the one hand, there are supplements linked to care that is covered by basic health insurance ('supplemental fees'). On the other hand, there are supplements for care that is not covered by basic health insurance ('supplemental services').

2.3.4.3.1. Co-payments

According to basic health insurance data, in 2010, the total sum of co-payments to be allocated to 'other health practitioners' amounted to €150 million (Fig. 6).

65 For our estimates, we have transferred 'psychotherapy' from HP.3.3 to HP.3.1 ('Offices of physicians'), since this particular type of psychotherapy is being provided solely by psychiatrists. The result of this transfer is a decrease of €73 million public expenditure on HP.3.3 together with a decrease of €13.5 million co-payments.

2.3.4.3.2. Supplemental fees

On average, other health practitioners charge 7.6% supplements (weighted average) for care covered by basic health insurance.[66] This results in a total amount of €75 million supplemental fees (Fig. 6).[67]

2.3.4.3.3. Supplemental services

The estimates for private expenditure on traditional, complementary and alternative medicine ('TCAM'), provided by other health practitioners -mainly by physiotherapists- working in an ambulatory setting, amounted to about €146 million in 2010 (Fig. 6). This sum consists of €6.4 million for homeopathy, €22.2 million for acupuncture, €90.1 million for osteopathy and €27.6 million for chiropractic.[68]

Consultations with self-employed, registered clinical psychologists are not reimbursed by basic health insurance in Belgium. According to the Belgian Federation of Psychologists[69], private expenditure for psychologists represented approximately €230 million in 2010 (Fig. 6).[70]

Consultations with self-employed dietitians are only exceptionally reimbursed by basic health insurance.[71] The Flemish Professional Association of Dietitians supports the figure of €58.9 million of private expenditure on dietary advice for the Belgian market (Fig. 6).[72]

We assume other private expenditure for care not covered by basic health insurance could be estimated at 5% of public expenditure plus co-payments (Fig. 6) (e.g. TCAM other than homeopathy, acupuncture, osteopathy and chiropractic; services by podologists, physiotherapists, speech therapists not reimbursed by NIHDI). Five percent might indeed be a fair approximation, given the fact that private expenditure for psychologists, dietitians and homeopathy, acupuncture, osteopathy and chiropraxy has been calculated separately.

66 *Source*: 'DKV Belgium' (cf. '3.2. Alternative methodology').
67 7.6% x €987 million.
68 Estimate based on reports nr. 148, 153 and 154 of the Belgian Health Care Knowledge Center (KCE) and on the Belgian Health Interview Survey 2008 ('Enquête de Santé/Gezondheidsenquête 2008').
69 'Fédération Belge des Psychologues/Belgische Federatie van Psychologen' (FBP/BFP).
70 Approximately 5000 self-employed, registered clinical psychologists are active in Belgium. Many self-employed psychologists have another, day time job (as an employee). With on average 20 sessions per week and an average cost for the patient of €50 per session, we have a turnover of approximately €230 million on ambulatory psychotherapy provided by self-employed, registered clinical psychologists (46 weeks activity per year).
71 A limited number of consultations is reimbursed by NIHDI in case of diabetes or chronic kidney failure.
72 Approximately 1000 self-employed dietitians are active in Belgium. Average cost per consultation: €50 for the first (and second) consultation, €25-€30 for follow-up consultations. 1000 FTE dietitians x 40 consultations per week (8 consultations at €50 and 32 consultations at €27,5) x 46 weeks per year = €58.9 million.

2.3.4.3.4. Conclusion

While OECD Health Data are listing €182 million private expenditure on ambulatory care provided by other health practitioners, we have calculated a total of €717 million (Fig. 5). The difference pertains mainly to care not covered by social security and for which publicly available information is rather scarce ('missing or incomplete data').

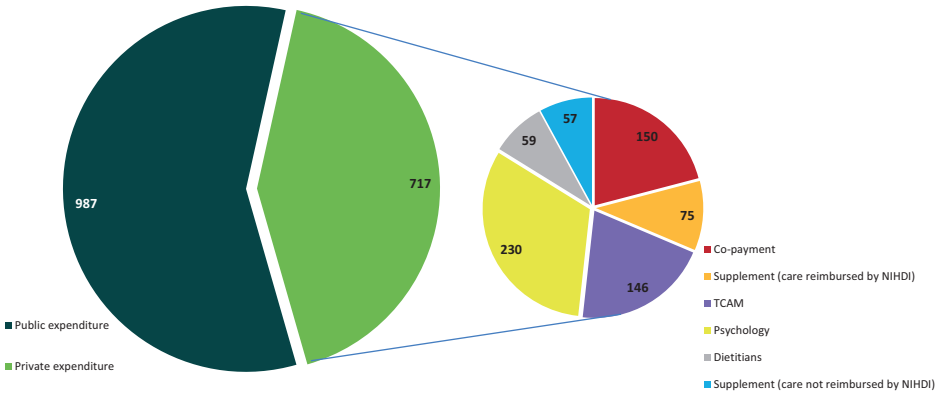


Fig. 6. Private expenditure for other health practitioners (e.g. physiotherapists, psychologists, dietitians) in Belgium 2010 (alternative calculations) (million €)

2.3.4.4. Medical goods: €2.6 billion versus €2.5 billion

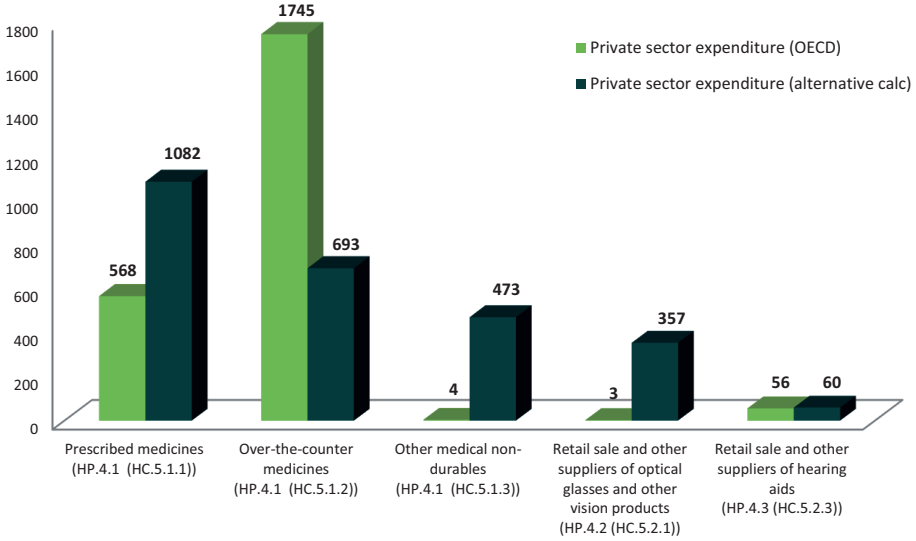


Fig. 7. Private expenditure on medical goods in Belgium 2010 (million €).

2.3.4.4.1. Pharmaceuticals[73]

OECD Health Data give us a figure of €2434 million for private expenditure on health in pharmacies in 2010 (HP.4.1). Consumption of pharmaceutical products through other retail selling channels (e.g. bandages in supermarkets) is not included in this estimate, due to a lack of information.

According to the Belgian Association of Pharmacists[74], private expenditure on ambulatory medicines totaled €1775 million in 2010 (prescribed medicines 1082 million[75], over-the-counter medicines €693 million) (Fig. 7).

Private expenditure on para-pharmaceutical products ('other medical non-durables') amounted to €946 million.[76] Some of these para-pharmaceutical products are health care related and some are not. We assume 50% of them to be health care related (€473 million) (e.g. bandages, incontinence articles).

Due to missing data and interpretation of definition problems, OECD Health Data's allocation to the different categories of pharmaceuticals is not correct (Fig 7, first three columns).

2.3.4.4.2. Vision products[77]

According to alternative billing information, private expenditure on glasses and other vision products represented €357 million in 2010,[78] where OECD Health Data are listing €2.6 million only (Fig. 7). The reasons for this discrepancy are missing data and the assumption that private expenditure for vision products can be adequately calculated using co-payments (amounting to merely €1 million for vision products).

73 So far as pharmaceuticals are concerned, we will also be using the ICHA-HC classification (expenditure on health by function) since this classification allows for a more detailed analysis (i.e. distinction between prescribed medicines, OTC medicines and other medical non-durables): HC.5.1.

74 'Association Pharmaceutique Belge/Algemene Pharmaceutische Bond (APB)'.

75 Co-payments on prescribed medicines reimbursed by basic health insurance representing €499 million and not reimbursable prescribed medicines €583 million.

76 *Source*: 'Association Pharmaceutique Belge/Algemene Pharmaceutische Bond' (2011).

77 HP.4.2.

78 In 2010, total turnover in the market of vision products was €475 million. This market can be split up in glasses (50%), spectacle frames (30%), contact lenses (10%) and sunglasses and other vision products (10%) (*source*: 'Pearle'). When assuming one third of the expenditure for spectacle frames to be 'luxury expenditure' and deducting this 10% together with the 10% expenditure on sunglasses and other vision products, we get a turnover of €380 million. When deducting €23 million public expenditure we get a total of €357 million private expenditure on glasses and vision products.

2.4. DISCUSSION

OECD Health Data are a well-known source for detailed information about expenditure on health. These data are an important tool for analysing health policy issues over time and in comparison with other countries. This study has made clear that current official Belgian estimates of private health expenditure (as published in the OECD Health Data) are not reliable. We have distinguished four potential major sources of problems with estimating private health spending: interpretation of definitions, formulation of assumptions, missing or incomplete data and incorrect data.

As an alternative for the current OECD Health Data for Belgium, we have used reliable billing information to calculate private expenditure on health. Such billing information is not always publicly available. For Belgium we find differences of more than 100% between the OECD Health Data and our estimates, both underestimations and overestimations. For instance, according to OECD Health Data private expenditure on hospitals amounts to €3.1 billion, while according to our alternative calculations based on billing information these expenses are only €1.1 billion. An overview of our results is given in Table 1.

In 2010, total private expenditure on health in Belgium amounted to €9.3 billion according to OECD Health Data and €9,4 billion according to alternative calculation. The fact that the two figures for total private expenditure are almost identical, is a mere coincidence. When we look at the composition of total private expenditure, we notice important differences. However, these differences are not interdependent. E.g. private expenditure on hospitals (€3.3 billion versus €1.1 billion) does not affect private expenditure on homes for the elderly (€400 million versus €1.7 billion). Allocating €2 billion less to hospitals and €1.3 billion more to homes for the elderly cannot be considered communicating vessels.

Reliable figures about private expenditure on health are important for the different stakeholders in the health care system. In many countries, OECD Health Data on private expenditure provide stakeholders with relevant information about e.g. out-of-pocket expenses and access to care, and can have important policy implications. However, based on these data stakeholders may come to wrong conclusions and wrong policies. For example, policy makers in Belgium might overestimate the 'problem' of accessibility of hospital care; and additional health insurers might believe there still to be huge market opportunities, while additional health insurance covering hospital costs in fact is a saturated market. Another example is homes for the elderly. The OECD Health Data state that private expenditure on homes for the elderly in Belgium represents about

€400 million, with alternative calculations providing us with a figure of €1.7 billion. This kind of figures may be important for governments deciding upon investing or not in higher pensions for instance.

This raises the question how the reliability of data on private expenditure can be improved. So far as the interpretation of definitions and the formulation of assumptions is concerned, creating transparency and stimulating critical analyses can lead to more consistent data. In 2008 Pacolet published a study on the application of the System of Health Accounts in Belgium (Pacolet and Borghgraef, 2008). He suggested a methodology to be implemented, resulting -for 2003- in total expenditure on health amounting to 11.1% of GDP and private expenditure on health totaling 30,4%. For the same year 2003, the methodology applied for the OECD Health Data 2013 resulted in total expenditure on health amounting to 10.0% of GDP and private expenditure on health totaling 24,8%. Pacolet proposed to include additional health care costs into the OECD Health Data, especially relating to homes for the elderly. In the current OECD Health Data for Belgium, this large definition has not been followed. Similar interpretation problems exist in accounting. The Financial Accounting Standards Board (FASB), a seven member independent board, develops standards for accounting and reporting in the United States, the generally accepted accounting principles (GAAP). The FASB sets out to improve corporate accounting practices by enhancing guidelines set out for accounting reports, identifying and resolving issues in a timely manner and creating a uniform standard across the financial markets.

As for missing, incomplete or incorrect data, drilling new sources of information may help to find new, reliable data. Some sources are publicly available.[79] Unfortunately, several sources used in this study are not -readily- publicly available, making it hard for public agencies to adjust their estimates. Ideally, agreements about the recurrent delivery of crucial figures could be made between the owners of these sources and the national statistical authorities producing the health data (e.g. for medical goods such as vision products and pharmaceuticals). Additional health insurers have data on private expenditure and reimbursement by additional health insurance. It should be possible to create a certain level of transparency, at least for the national statistical authority that produces the health data. Within the context of this study, the collaboration between experts from public agencies and health insurers has proven fruitful and may lead to future improvements of the OECD Health Data estimates for Belgium. A major problem is the care that is not reimbursed, not by basic nor by additional health insurance. Here,

79 E.g. Christian and Socialist sickness funds' annual study on hospital costs.

Table 1. Expenditure on health by provider and source of funding: OECD Health Data versus alternative calculations (Belgium 2010) (million €).

	General government expenditure (OECD)	Private sector expenditure (OECD)	Private sector expenditure (alternative calculations)
Hospitals	**8612**	**3139**	**1073**
General hospitals	7332	2436	966
Mental health and substance abuse hospitals	1188	451	95
Specialty (other than mental health and substance abuse hospitals)	92	252	12
Nursing and residential care facilities	**4238**	**397**	**1991**
Nursing care facilities *(homes for the elderly)*	2344	378	1136
Residential mental retardation, mental health and substance abuse facilities	109	18	*18**
Community care facilities for the elderly	0***	0	610
All other residential care facilities	1784	0	227
Providers of ambulatory health care	**8766**	**2991**	**3420**
Offices of physicians	3240	1537	1243
Offices of dentists	770	584	592
Offices of other health practitioners	987	182	717
Out-patient care centres	278	1	*1**
Medical and diagnostic laboratories	1471	184	293
Providers of home health care	1242	10	82
Other providers of ambulatory health care	778	492	*492**
Retail Sale and other providers of medical goods	**3764**	**2459**	**2627**
Dispensing chemists (pharmacies)	3731	2434	2248
(Pharmaceutical and other medical non-durables - HC.5.1)	(3735)**	(2317)**	*(2248)***
Retail sale and other suppliers of optical glasses and other vision products	23	3	357
Retail sale and other suppliers of hearing aids	0	20	*20**
(Hearing aids - HC.5.2.3)	(45)**	(56)**	*(60)***
Retail sale and other suppliers of medical appliances (other than optical goods and hearing aids) All other miscellaneous sale and other suppliers of pharmaceuticals and medical goods	10	2	*2**
Provision and administration of public health programs	**874**		
General health administration and insurance	**1501**	**331**	**331**
Other industries (occupational health care / private households)	**333**	**0**	**0**
Total general government expenditure / Total private sector expenditure	**28088**	**9316**	**9442**
Total expenditure		37404	37530
Total private sector expenditure (% of total expenditure)		24.9%	25.2%

* When no alternative data are available, OECD figures for private expenditure are being used.

** Figures for HC.5.1 and HC.5.2.3 have not been used to calculate total expenditure.

*** General government expenditure on community care facilities for the elderly is comprised in general government expenditure on nursing care facilities (homes for the elderly).

it would be very helpful if professional associations would publish consistent, yearly updated data on utilisation and financing of the care provided by their members.

OECD, Eurostat and WHO are well aware of the issue of the (un)reliability of data on private and out-of-pocket expenditure on health. Eurostat might soon launch a survey with its member states to make an inventory of all sources of out-of-pocket expenditure.[80]

2.5. CONCLUSION

Reliable information on private expenditure on health is important. Private expenditure and especially out-of-pocket expenditure can have a negative impact on the accessibility of health care. Figures on private and out-of-pocket expenditure are a crucial starting point when examining the accessibility of certain (sub)sectors of health care (Frenk *et al.*, 2006). However, current official Belgian estimates of private health expenditure (as published in the OECD Health Data) are not reliable mainly because hard data on private expenditure are not transparent. Using some alternative sources of billing information, we have reached more accurate estimates of private and out-of-pocket expenditure. This approach may serve for some OECD countries to re-examine their sources and methodologies. For other countries, it may be irrelevant. Rannan-Eliya holds that out-of-pocket expenditure on health has proved to be one of the components with least reliability in most health accounts (Rannan-Eliya, 2010). OECD, WHO and Eurostat have taken and are taking several initiatives to improve the reliability of private health expenditure data. In the next editions of the OECD Health Data, some of the Belgian figures for private expenditure on health will be adapted according to the findings of this study.

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80 *Source*: Belgian Federal Public Service Social Security.

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3. Supplementary physicians' fees

3.1. Extra billing in health care: Prohibit, regulate or laissez-faire?

3.2. Supplementary physicians' fees: A sustainable system?

3.1. Extra billing in health care: Prohibit, regulate or laissez-faire?

Calcoen, P., van de Ven, W.P.M.M. and Verlinden, P. (2015). Extra billing in health care: Prohibit, regulate or laissez-faire? (Trans.) [Ereloonsupplementen in de zorg: verbieden, reguleren of laisser-faire?]. *Belgisch Tijdschrift voor Sociale Zekerheid/Révue belge de sécurité sociale*, 3: 535–560.

3.1. INTRODUCTION

Definitions
Extra billing is the practice of health care providers charging a supplementary fee on top of the tariff agreed upon by health insurance. This tariff may include a co-payment or co-insurance to be borne by the patient.
In Belgium, the term 'ereloonsupplement' (in Dutch) and 'supplément d'honoraires' (in French) is used for a fee charged on top of the official tariff set by basic health insurance.
In France, the term 'dépassement d'honoraires' is used and in Germany, 'Steigerungssatz'.
In the U.S., the term 'balance billing' is used for health care providers billing patients more than what the insurer pays for their services. In Canada, 'extra billing' is the preferred term.

In many countries, extra billing is a controversial issue. In Belgium, some political parties are proposing a prohibition or a strict limitation of extra billing, especially for inpatient care. They are afraid that extra billing jeopardises accessibility of medical care for low-income groups. In France, in 2012, in order to stop excesses, extra billing by physicians has been limited to 150% on top of social security tariffs. In Canada and the U.S., discussion about extra billing continues. In Canada, opponents of extra billing think it will erode Canada's public health care system and give way to a two-tier system.

Driven by the economics of medical practice before the spread of health insurance, doctors applied price discrimination by charging patients according to what they thought each patient could afford. The use of sliding fee scales persisted until widespread health insurance drove a standardis ation of fees (Hall and Schneider, 2008).

The goal of this paper is twofold. First, we provide new detailed estimates on extra billing in Belgium (e.g. total amount of extra billing, split between in- and outpatient care and between the different health care providers). Second, we put forward and discuss several policy issues concerning extra billing that may be helpful for policymakers who decide about different policy options such as 'laissez-faire, regulation or prohibition'.

3.2. THE PRACTICE OF EXTRA BILLING IN BELGIUM

3.2.1. Regulatory framework for supplementary fees in belgium

In Belgium, the legal basis for charging supplementary fees can be found in the Health Care Professions Act, which states that practitioners can set their fees freely. The Code of medical ethics holds that physicians should be moderate when determining their fees and be willing to explain to their patients why they are charging a certain fee.

According to article 50 of the Health Insurance Act, every two years, an agreement is made between the trade unions of the physicians and the 'sickness funds' (representing

their members as social insurees). Physicians can choose to adhere to the agreement ('conventioned' physicians) or they can choose completely not to adhere ('non-conventioned') or partially, for certain well defined days and hours ('partially conventioned'). Partially conventioning is only possible with regard to ambulatory patients.[81] 'Conventioned' physicians get an annual contribution from compulsory health insurance for their future pension (4506 EUR in 2014).

Invariably since 1964, the biannual agreement between physicians and sickness funds has listed situations in which conventioned physicians are at liberty to deviate from the official tariffs set by compulsory health insurance, i.e. for special demands made by a patient (e.g. a private room in a hospital or a consultation late at night).

The agreement also allows conventioned physicians to charge supplementary fees for households whose taxable income exceeds 66709 EUR per year (figure for 2014). However, since it is rather awkward to ask patients for proof of their exact taxable income, physicians have not been using this possibility so far. Dentists no longer have this possibility at their disposal since it has been left out in the biannual agreement between dentists and sickness funds.

As from 1 January 2013, supplementary fees have been forbidden by Belgian government for patients staying at least one night in double and common rooms in hospitals.[82] As from 27 August 2015, supplementary fees are also forbidden for one-day admissions in double or common rooms.

Every hospital has to define a maximum percentage of supplementary fees that can be charged (a percentage of the official tariff of the compulsory health insurance system). Today, maximum percentages for supplementary fees range between 0% and 300%. Today, just one single hospital (Saint Luke hospital in Bruges) has set out different percentages for non-conventioned (300%) and conventioned (100%) physicians. Since there is no limitation by law, hospitals are at liberty to set the maximum percentage of supplementary fees as high as they prefer.

81 First stipulated in the 2009-2010 national convention between physicians and sickness funds.

82 Several associations of physicians filed an appeal in the Belgian Constitutional Court against the abolishment of supplementary fees in double and common rooms. In its judgment of 17 July 2014, the Court stated that the new law respected the equilibrium between an equal access to health care and an equitable income for physicians (with the new law allowing physicians to continue to charge supplementary fees in private rooms).

There are important regional differences in the maximum percentage of supplementary fees charged. In 2014, on average, general hospitals in Flanders applied a maximum percentage of 118%, general hospitals in Wallonia 195% and general hospitals in Brussels 279%.[83] Within the same hospital, there can also be differences between specialties. For instance, in the Saint Augustine hospital in Antwerp, certain specialties (e.g. the gynaecologists) apply the maximum of 200% set by the hospital, while other specialties apply a maximum of 130%.

3.2.1.1. Impact of supplementary fees

Until 1 July 2014, the official admission form a patient has to sign when s/he is being hospitalised stated that the patient had no free choice of physician when s/he was not willing to pay supplementary fees. In the new admission form, defined by the Royal Decree of 17 June 2014, this phrase has been omitted.

In Belgium, according to article 6 of the Patient Rights Act, a patient can freely choose his/her physician. However, physicians are free to refuse treatment, with an exception for urgent treatments (Nys, 2001; Vansweevelt and Dewallens, 2014). As a result, patients refusing to pay supplementary fees, may not be treated by the physician of their choice.

3.2.1.2. Transparency

Article 8, §2 of the Patient Rights Act states that the patient needs to be duly informed about the financial consequences of a medical intervention in order to be able to give his/her informed consent. This includes information about supplementary fees and information about the 'convention status' of the physician (whether the physician respects the official tariffs set by compulsory health insurance) (Dijkhoffz, 2004). Charging supplementary fees in hospitals is strictly regulated. Every hospital has to provide the patient with a list of the maximum supplementary fees that can be charged (expressed as a percentage of the official tariffs set by compulsory health insurance). The admission form to be signed by the patient allows him/her explicitly to choose supplementary fees not to be charged.

Charging supplementary fees in an outpatient setting is less regulated. Physicians only have to put up a notice in their waiting room with their 'convention status' (stating whether or not they stick to the official tariffs set by compulsory health insurance). They do not have to list the level of supplementary fees charged. Recently, a new law has created more transparency, obliging physicians to specify - in certain circumstances - the

83 Calculation based on the maximum percentage of supplementary fees listed in the 'internal regulation' of every hospital.

supplements charged on the patient bill (when billing electronically and when at the same time billing care reimbursed by social security and care not reimbursed by social security).[84]

3.2.2. New figures on supplementary fees in belgium

Using data from Deutsche Krankenversicherung Belgium ('DKV Belgium'), the market leader for additional health insurance, we have been able to calculate estimates on supplementary fees for outpatient care (cf. footnotes 7 and 8). So far, only for inpatient care reliable estimates on supplementary fees have been published in Belgium. Combining existing estimates for inpatient care with new estimates for outpatient care, based on authors' own calculations, makes it possible - for the first time - to present a reliable estimate of the total amount of supplementary fees charged by health care providers.

In 2012, supplementary fees were 1.2 billion EUR on a total of 8.8 billion EUR private expenditure and 39.6 billion EUR total expenditure on health. Supplementary fees represented 14% of total private expenditure on health, while co-payments represented 21%. The bulk of total private expenditure (60%) comprised payments for care not included in the basic package of the National Institute of Health and Disability Insurance (NIHDI) (cf. figure 1).

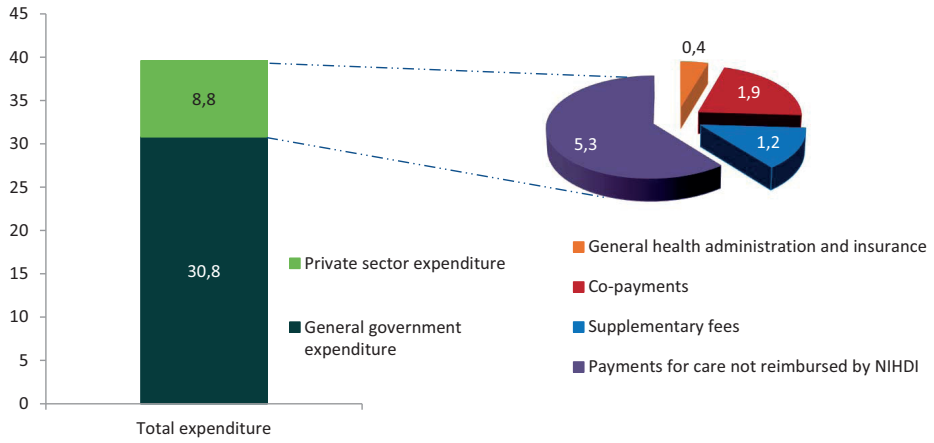

Figure 1. Private expenditure on health in Belgium in 2012 (billion €) (OECD Health Statistics 2015, authors' own calculations; sources: Christian sickness fund, DKV Belgium, NIHDI)[85]

84 Art. 22-23 wet van 17 juli 2015 houdende diverse bepalingen inzake gezondheid, *Belgisch Staatsblad* 17 August 2015.

85 The amounts listed are estimates, after extrapolation of the findings of the Christian sickness fund (for inpatient care) and DKV Belgium (for outpatient care) respectively.

Traditionally, supplementary fees for inpatient care have been in the spotlights. About 75% of all Belgians are carrying additional health insurance covering inpatient care (including supplementary fees). However, less than 5% have comprehensive additional coverage for outpatient care.

Figure 2 shows that the total amount of supplementary fees charged in Belgium in 2012, is estimated at 1.2 billion EUR, with inpatient care accounting for 31% of total amount of supplementary fees and outpatient care for 69%.

Physicians and dentists are responsible for the bulk of supplementary fees in outpatient care. Dentistry is especially well represented. For certain types of dental care the official tariff set by basic health insurance is quite low, resulting in important supplementary fees (e.g. orthodontics and periodontology). Often, dentists use new techniques, the additional cost of which is not always readily reimbursed by basic health insurance. Supplementary fees can be used to finance these new techniques. Today, less than 5% of all Belgians are carrying additional dental insurance. The number of insured is likely to increase since several sickness funds recently have started to offer additional dental insurance products.

Most supplementary fees attributed to the category 'offices of other health practitioners' are charged by physiotherapists. 'Medical and diagnostic laboratories' comprehend medical imaging and clinical biology centres. It is rather rare that supplementary fees are being charged by providers of home health care services.

Table 1 gives an overview of supplementary fees expressed as a percentage of total fees earned.

In a hospital, supplementary fees charged by physicians represent 11.4% of fees earned. In an ambulatory setting, this figure is 9.2% (5.8% for general practitioners and 14.8% for specialists).

Dentists charge substantial supplementary fees for orthodontic treatments (143.7%) because reimbursement by basic health insurance for this kind of treatment is limited.

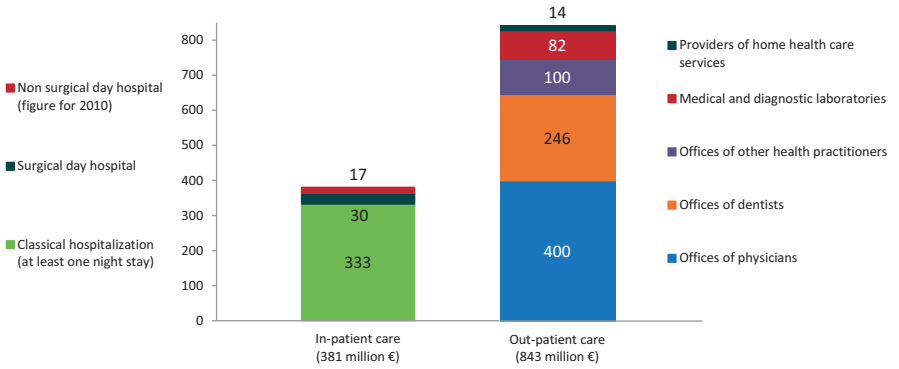

Figure 2. Supplementary fees in Belgium in 2012 (million €) (authors' own calculations; sources: Christian sickness fund[86], DKV Belgium[87,88], NIHDI)

86 For the estimation of supplementary fees charged for inpatient care we have been using the annual study on hospital bills, published by the Christian sickness fund. In 2012, the Christian sickness fund covered 41.6% of the Belgian population (*source*: NIHDI). CM, Negende barometer van de ziekenhuisfactuur, 7 November 2013 (figures for 2012) (http://www.cm.be/binaries/CM-255-NL-9deCM-barometer_tcm375-137079.pdf, accessed 5 October 2015).

87 For the estimation of supplementary fees charged in an ambulatory setting, we have been able to use data from DKV Belgium, the market leader in additional health insurance (covering 16.4% of the Belgian population in 2012). About 20% of what DKV Belgium reimburses, pertains to ambulatory care (people carrying a full cover for ambulatory care and people carrying a cover for pre- and posthospitalisation costs). We have been using information from 1432429 services billed for ambulatory care and sent to DKV Belgium for reimbursement in 2012, 2013 and 2014 (with among others 921000 acts referring to physicians, 118000 to dentists and 189000 to physiotherapists). We calculated supplementary fees as a percentage of reimbursement by basic health insurance plus co-payments. We multiplied these percentages with total reimbursement by basic health insurance plus co-payments to get estimates for total amounts of supplementary fees. Supplementary fee percentages represent a weighted average of a certain (sub) sector. Every (sub) specialism has a supplementary fee percentage. For calculating the average of a group of (sub) specialisms the weight of each (sub)specialism has been taken into account. For outpatient care, OECD's Health Provider classification has been followed.

88 We are aware of the fact that there may be some bias as to the data from DKV Belgium. People carrying additional health insurance might be less price sensitive and health care providers knowing that a patient is additionally insured might charge higher prices. However, additional coverage for ambulatory care is not widespread in Belgium (less than 5% of the population). Providers of ambulatory health care generally do not take into account the possibility that a patient might be carrying additional coverage for ambulatory care. We assume that the upward pressure of additional health insurance on supplementary fees is limited so far as ambulatory care is concerned. Anyway, it might be recommended to consider the percentages of supplementary fees for ambulatory health care presented here as 'upper limit', real supplementary fees maybe being somewhat lower.

Table 1. Supplementary fees as a percentage of 'total fees earned based on the official tariffs, including co-payments' (Belgium) (2012) (authors' own calculations; sources: Christian sickness fund, DKV Belgium and NIHDI[89]

INPATIENT CARE	
Physicians working in hospitals	**11.4%**

OUTPATIENT CARE			
Offices of physicians	**9.2%**	**Offices of dentists**	**24.5%**
1. Gynaecology	6.9%	1. Conservative treatment	11.8%
2. Surgery	19.4%	2. Prosthetic treatment	46.9%
3. Technical acts	4.6%	3. Orthodontic treatment	143.7%
4. Consultations and house calls	8.9%	4. Periodontal treatment	27.1%
- General practitioners	5.8%	**Offices of other health practitioners**	**6.6%**
House calls	1.6%	1. Speech therapists	0.9%
Consultations	9.0%	2. Providers of bandages	28.3%
- Specialists (consultations)	14.8%	3. Physiotherapists	5.6%
Cardiologists	*9.2%*	4. Providers of orthopedic material	15.7%
Dermatologists	*16.1%*	5. Midwives	19.3%
Gerontologists	*9.4%*	**Medical and diagnostic laboratories**	**4.4%**
Internal medicine specialists	*4.7%*	1. Clinical biology	1.6%
Neurologists, psychiatrists and neuropsychiatrists	*7.8%*	2. Medical imaging	6.1%
Oncologists and haemotologists	*4.4%*	**Providers of home health care services**	**0.8%**
Pediatricians	*9.6%*	1. Nurses	0.8%
Other medical specialists	21.0%		

3.3. POLICY ISSUES CONCERNING EXTRA BILLING

3.3.1. Additional health insurance

In hospitals in Belgium, the bulk of supplementary fees is covered by additional health insurance. About 75% of Belgians carry an additional cover for hospital costs. Because of this high percentage, additional hospitalisation insurance is said to have an inflationary effect on supplementary fees. People carrying additional health insurance may be less price-sensitive and health care providers, knowing that a patient is additionally insured, may charge higher prices. There certainly is an interaction between supplementary fees and additional health insurance, since the first additional health insurance - covering

89 Total private expenditure on hospitals represents 8.5% of total expenditure on hospitals. Total supplementary fees represent 35.6% of total private expenditure on hospitals.

private hospitalisation costs - came on the market in Belgium in 1964, the same year universal health insurance was established (creating the possibility of - legally - charging supplementary fees).

Contrary to hospital costs, and with 69% of total supplementary fees in Belgium being charged in an ambulatory setting, it is remarkable that less than 5% of Belgians are carrying full additional coverage for outpatient costs. Since full additional coverage for ambulatory care is not widespread in Belgium, providers of ambulatory health care generally do not take into account the possibility that a patient might be carrying additional coverage for ambulatory care. Therefore, so far as ambulatory care is concerned, we assume the upward pressure of additional health insurance on supplementary fees to be limited.

Additional health insurers may try to reduce upward pressure on prices by certain measures such as deductibles, co-insurance and price negotiations with providers.

In Belgium, there is no tax deductibility for premiums paid for additional health insurance. For individual and group contracts alike, there are no fiscal incentives.

3.3.2. Patients facing financial problems

According to the Belgian Health Interview Survey (2013), 26 % of households say that private expenditure on health is (very) hard to bear (32 % if the reference person is > 75 years old). In 2013, 8% of Belgian households had to postpone medical care for financial reasons (Demarest, 2015).

Debt as a result of private health care costs and debt as a result of energy costs are said to be among the most important risk factors for sinking into poverty in Belgium (Vranken *et al.*, 2009).

Government has implemented a number of specific measures to improve accessibility for high risk and low income people, such as preferential reimbursement for low income groups ('Verhoogde Tegemoetkoming'/'Intervention Majorée') and yearly subsidies for chronic patients (e.g. for incontinence material). In 2001, a maximum billing system ('MAF') has been introduced. This measure improved the out-of-pocket maximum, already introduced in 1994 under the social and fiscal exemption mechanism for certain vulnerable categories, by extending the scheme to all households and to other types of user charges. MAF ensures that, according to the family's net income, each household has an annual out-of-pocket maximum for all 'necessary health care expenses' (Corens,

2007). As soon as expenses reach the set ceiling, any further health care costs are covered in full by the health insurance fund for the remaining part of the year.

However, only care reimbursed by basic health insurance is taken into account for the calculation of the MAF. Supplementary fees and room charges for private rooms in hospitals but also supplements for medical material that is not reimbursed by basic health insurance are not covered by the MAF system.

Patients who have no additional health insurance coverage, need to pay for supplementary fees out-of-pocket. About 25% of the Belgians are not carrying additional health insurance. Some of them choose not to because they have sufficient financial resources to do without insurance. A large group however may be too old, too sick or too poor - or a combination of the three - to buy an additional coverage.

3.3.3. Inpatient versus outpatient setting

Unlike France where additional health insurance is providing a large coverage for both inpatient and outpatient costs, additional coverage in Belgium is focusing on inpatient costs only ('hospitalisation insurance'). Less than 5% of the Belgians are carrying a full additional cover for outpatient costs. However, since 69% of total supplementary fees in Belgium is being charged in an ambulatory setting, ambulatory supplementary fees might in certain circumstances constitute a financial barrier for low income groups.

A further restriction of supplementary fees in hospitals, might result in a compensatory increase of ambulatory supplementary fees. Physicians may also transfer certain procedures to an ambulatory setting. So far, ambulatory supplements are only scarcely regulated.

3.3.4. Increase of social security tariffs and supplementary fees

A supplementary fee is a fee charged on top of the social security tariff and expressed as a percentage of that tariff. When the tariff is being increased, the supplementary fee automatically follows suit. For instance, when a tariff increases from 1000 to 1200 EUR, a 200% supplementary fee results in 2400 EUR instead of 2000 EUR. It is sometimes argued that in 1964, at the start of the current Belgian health insurance system, social security tariffs were relatively low and physicians could charge supplements to patients that could afford to pay more. As a consequence, some consider supplements as a part of the regular physician fee and social security tariffs as the physician fee for socially deprived patients (Van de Voorde *et al.*, 2014). Of course, this argument ought to be reconsidered, when social security tariffs increase and do reflect the full price.

In 2013-2015, several hospitals in the region of Namur have increased their maximum percentage of supplementary fees, from 100% to 200%.[90] These increases may be inspired by the desire to align with hospitals in the rest of Wallonia but of course they are not building stones for the financial sustainability of the supplementary fee system.

3.3.5. Reform of the hospital financing system

Federal Belgian government has decided that the hospital financing system needs to be reformed. On 26 September 2014, the Belgian Health Care Knowledge Centre has published an extensive report on the reform (Van de Voorde *et al.*, 2014). For this report, the Centre has intensively been consulting with all stakeholders.

Some stakeholders hold that supplements already have been heavily restricted over the last years. They believe that further regulation might encourage a further shift from hospitals towards private practices resulting in a dual health care system. Another group of stakeholders fears that supplementary fees in private rooms will further increase. They suggest to further restrict supplementary fees. Some stakeholders propose to just stop charging supplementary fees altogether. Others suggest to limit supplementary fees to a maximum percentage.

Some stakeholders consider charging supplementary fees in private rooms in hospitals to be a strange and unacceptable system, since different prices are being charged for the same care.

Conclusion of the report is that stakeholders have very divergent opinions on the further restriction of supplementary fees. For the moment, a reform of the supplementary fee system seems to be 'out of scope'.

3.3.6. Income for health providers

For certain groups of self-employed physicians in Belgium and France providing inpatient care, extra billing constitutes a substantial part of their income (cf. Table 2). Extra billing represents respectively 35% and 32% of total income of Belgian and French surgeons. In ambulatory care in Belgium, 9.2% of total income of all physicians is provided by extra billing.

90 For instance, Centre Hospitalier Régional Sambre et Meuse, Clinique Maternité Sainte Elisabeth, Clinique Saint Luc and Centre Hospitalier Universitaire Dinant Godinne.

Table 2. Share of supplementary fees in the income of self-employed physicians providing inpatient care in France and Belgium in 2010

	France	Belgium
Specialism	**% of gross income**	**% of gross income**
Stomatology	45.6%	15.9%
Surgery	31.9%	34.7%
Gynaecology	29.5%	34.9%
Ophthalmology	25.3%	10.1%
Oto-rhino-laryngology	20.8%	12.3%
Anaesthesia	16.7%	31.5%
Paediatrics	16.7%	21.1%
Psychiatry	16.6%	4.2%
Gastro-enterology	11.6%	11.5%
Radiology	4.0%	13.4%
Cardiology	4.0%	15.0%
Pneumology	4.0%	5.8%

Source: Drees, 2012 (FR); Swartenbroekx *et al.*, 2012 (BE).

In the Netherlands, price discrimination by physicians was legally banned in the 1990's. Before, in hospitals different fees were charged to members of sickness funds on the one hand and privately insured people at the other hand. In the 1960's for a 'first class' private patient staying in a single hospital room the fee for an inpatient treatment by a medical specialist could be tenfold the fee for the same treatment for a 'third class' sickness fund patient staying on ward. During several decades of fee regulation by Dutch government the differences in fees gradually converged to zero, without seriously reducing the income of medical specialists. In 2012, Dutch medical specialists earned more than their colleagues in neighbouring countries Belgium, Denmark and Germany (Kok *et al.*, 2012).

3.3.7. Revenue for hospitals

In Belgium, hospitals also do benefit from supplementary fees. In most hospitals, physicians have to cede a certain percentage of their supplementary fees to the hospital to help finance its overhead costs. E.g., hospitals have been raising the maximum level of supplementary fees from 100% to 150% of official tariffs to generate money for the construction of new hospital facilities.

However, self-employed physicians contribute more to the hospital's overhead costs with revenue from reimbursement by basic health insurance than with revenue from supplementary fees. In 2010, physicians overall contributed 41% of their total revenue from reimbursement by basic health insurance to financing hospitals (Belfius, 2011). Revenue from supplementary fees contributed for a varying but substantially lower

percentage. For example, while 31% of the revenue of gynecologists generated by reimbursement by basic health insurance is transferred to the hospital, only 15% of their revenue from supplementary fees goes to the hospital (Swartenbroekx *et al.*, 2012).

The University Hospital of Antwerp explains on its website what is being done with the proceeds of the supplementary fees. Proceeds of supplementary fees are being used 'to finance new medical techniques that are not yet reimbursed by government, to keep the hospital's budget in balance and to finance professional literature, training abroad and special equipment for the physicians' (UZA, 2012).

3.3.8. Competition between hospitals and physicians

If a hospital wants to attract a physician with a top reputation, offering the possibility to charge substantial supplementary fees, may constitute an important element in convincing the physician to switch hospitals. As a result, supplementary fee percentages tend to evolve to the same level within the same region or city. Most hospitals in Brussels apply a maximum level of supplementary fees of 300% of the official tariffs. Over the past few years, all hospitals in Antwerp have been increasing the maximum level of supplementary fees to 200%.

However, this mechanism does have an inflationary effect on supplementary fees and on the premiums of additional health insurance covering these supplementary fees. Another problem is that in most occasions the hospital and not the physician is charging the supplementary fee, leaving no room for appraisal by the physician and resulting in hospitals almost always - for every patient - charging the maximum percentage.

3.3.9. Extra comfort for patients

Patients willing to pay extra may be offered convenient consultation hours and comfortable private rooms in hospitals. In Belgium for instance, a general practitioner can charge supplementary fees for special demands made by the patient, e.g.: home calls at night or during the weekend when the physician is not on call, consultations after 9 pm or during the weekend, explicitly demanded by the patient. However, does a private room in a hospital still represent 'luxury' in an era when in the rest of the economy private rooms have become the norm? Imagine the receptionist in a hotel asking you whether you would prefer a private room or a room to be shared with a stranger. Anyway, while it is understandable that a patient needs to pay extra to the hospital for the use of a luxurious private room, it is difficult to understand why s/he should pay extra to the physician for staying in a single room.

3.3.10. Waiting time

Since health care providers can increase their income by engaging in extra billing, they might be motivated to provide extra consultation or operation time. This could result in avoiding or decreasing waiting lists.

In Germany, patients are covered either by statutory health insurance (SHI) or by private health insurance (PHI). Due to a 20%-35% higher reimbursement of physicians for patients with PHI, it is claimed that patients with SHI are faced with longer waiting times when it comes to obtaining outpatient appointments. Lungen *et al.* (2008) have shown that patients carrying SHI face waiting times for an appointment that are 3.08 times longer than patients carrying PHI. Other studies confirm their findings (Roll *et al.*, 2012; Farnworth, 2003). Countries facing waiting lists have developed a whole set of remedies to tackle this problem. In Spain, bonuses for specialists who achieved waiting-times reductions (that accounted for two to three per cent of their salary) may have contributed to the steady reduction in waiting times (Siciliani and Hurst, 2005). In the Netherlands, extra billing is forbidden.[91] However, the Dutch regulatory authority has stated that in future it might be possible for an intermediary to pay extra to a provider in order to get faster treatment, as long as other patients are not pushed aside (Nederlandse Zorgautoriteit, 2009).

3.3.11. Accessibility of care

In health care, the term 'equity' often is used in the sense that every person should have access to health care on the basis of need and not ability to pay (Richards, 2008). According to Weale and Clark the principle of equity means that all should have access to high quality, comprehensive care without financial barriers to access (Weale and Clark, 2009).

Sometimes, new medical technology is only available for patients who are willing and able to pay supplementary fees. Dentists for instance use new techniques, the additional cost of which is not always readily reimbursed by basic health insurance. Supplementary fees can be used to finance these new techniques. Patients who are not able to pay these supplementary fees, may not have access to the new dental materials that are being used.

3.3.12. Access to time-consuming and/or complex procedures

Sometimes, the official tariff agreed by health insurance, does not meet the expectations of physicians. When a fee for a certain service is perceived to be too low, physicians may refrain from performing that service. Waiting lists may arise or better-remunerated

91 Cf. art. 35, lid 1 Mededingingswet.

alternatives may be suggested to the patients. When two different procedures are available for the treatment of the same medical problem, a time-consuming and complex procedure (golden standard) at the one hand and an easier, faster procedure on the other hand, physicians may choose to perform the latter if reimbursement for the time-consuming and complex procedure is perceived as being (too) low. Two examples.

Autologous reconstruction of the breast after amputation for breast cancer - a DIEP-flap reconstruction - currently is reimbursed by compulsory health insurance in Belgium at a rate of 1527 EUR. A DIEP flap is a type of breast reconstruction in which blood vessels called deep inferior epigastric perforators (DIEP), and the skin and fat connected to them are removed from the lower abdomen and transferred to the chest to reconstruct a breast after mastectomy (Blondeel, 1999). A recent study of Damen *et al.* (2011) revealed that in the Netherlands actual total cost for a unilateral DIEP-flap reconstruction was 12,848 EUR, with actual surgery costs amounting to 6346 EUR. With Belgian and Dutch prices for health services generally not diverging very much, there may be an important gap in Belgium between the fee agreed by health insurance and the real cost of the DIEP-flap reconstruction, a procedure taking more than 6 hours with several surgeons. Generally, plastic surgeons charge 200% or 300% supplementary fees to fill the gap. These supplementary fees are generally reimbursed by additional health insurance. About 75% of the Belgian population carries an additional coverage for hospital costs. Access to a DIEP-flap reconstruction may be financially difficult for patients who do not have such coverage.

Mohs surgery is used to treat skin cancer. During the surgery, after each removal of tissue, while the patient waits, the pathologist examines the tissue specimen for cancer cells, and that examination informs the surgeon where to remove tissue next. Mohs surgery is the treatment of choice for certain types of skin cancer because of its high cure rate and maximal conservation of tissue (Gloster *et al.*, 1996). Analysis of the existing literature on Mohs surgery relative to surgical excision confirms that Mohs surgery is a cost-effective treatment. It is lower in cost than surgical excision, which often includes an ambulatory surgical centre facility fee and a subsequent re-excision procedure (Tierney and Hanke, 2009). In Belgium, reimbursement by compulsory health insurance of surgery for skin cancer amounts to 441 EUR (2014). Supplementary fees - e.g. 100% or 200% - play an important role as an incentive for dermatologists to effectively choose for the time-consuming procedure of Mohs surgery and not for the one-time broad surgical excision.

Reconstruction of the breast after breast cancer can be performed either with own tissue or with a breast implant. Since reimbursement by basic health insurance in Belgium of a breast reconstruction with own tissue is quite limited - as opposed to a

reconstruction with an implant - a breast reconstruction with an implant is more likely to happen when no supplementary fees can be charged. The same goes for Mohs surgery for the treatment of skin cancer. In the absence of supplementary fees a one-time broad surgical excision may be preferred by the surgeon (and the hospital) instead of the time-consuming step by step approach of Mohs surgery. The divide between those having access or not to (new) time-consuming and complex medical procedures paid for with supplementary fees, runs pretty much along the same line as the divide between those who have an additional cover and those who have not.

3.3.13. Quality of care

In a theoretical study, Glazer and McGuire (1993) have shown that restrictions on extra billing come at a price as doctors have an incentive to reduce the quality of their services. A physician can be regarded as making two choices to maximise profit, the price for the price-paying patients (patients willing to pay extra), and the quality for the fee-only patients (patients not willing to pay extra). Physicians' equilibrium choice of quality and price depends on the level of fee set by the regulator. When the fee is low enough, no patients will be taken at the fee only. When the fee is high enough, no patients will be charged extra. When the fee is set in the range between the minimum fee, necessary to induce physicians to take some patients at the fee only, and the optimal fee, high enough to avoid patients being billed extra, some patients are served for the fee but the quality to the fee-only patients is less than or equal to the quality for the price-paying patients. Glazer and McGuire hold that quality is set at a higher level for both patients paying the price and those not paying a supplemental price when price discrimination is permitted. The reason is that when discrimination is prohibited, physicians can only extract rents by setting quality. They do so by reducing quality, and therefore saving on costs.

Kifmann and Scheuer (2011) applied the findings of Glazer and McGuire to Medicare in the U.S. They studied the effects of 'balance billing', i.e. allowing physicians to charge a fee from patients in addition to the fee paid by Medicare. In contrast to Glazer and McGuire, they did not find that allowing balance billing is generally superior as balance billing allows physicians to increase their rents.

An empirical study of the effects of Medicare restrictions on extra billing in the late 1980s and early 1990s has been performed by McKnight (2007) She found that these restrictions reduced out-of-pocket medical expenditure of Medicare beneficiaries by 9%. With the exception of a significant fall in the number of follow-up telephone calls, her study showed little evidence that physicians changed their behavior in response to the extra billing restrictions.

An important question is whether extra billing creates extra value for the patient? In health care, 'value' can be defined as the health outcome achieved for the money spent. While most hospitals in Brussels charge 300% supplementary fees, three times the official tariff, hospitals in more rural areas charge 100%. Is the value offered in Brussels' hospitals indeed twice the value offered in hospitals that are 50 or 100 kilometers away from Brussels (the cost of living being only slightly higher in Brussels)?

In the 1990's the effect of the choice of a private room in a hospital on the care provided has been analysed for certain diagnoses (normal delivery, caesarean section, cataract operation, cholecystectomy, spinal fusion, lung cancer and myocardial infarction). The conclusion was that, apart from epidural anesthesia during childbirth being more frequently applied for patients staying in a private room, no other medical acts had been provided in private rooms versus common rooms in Belgian hospitals (Calcoen and Cormans, 1995). A review of the literature by van de Glind *et al.* (2007) - that included no studies about the Belgian situation - found that private rooms have a moderate effect on patient satisfaction with care, noise and quality of sleep, and the experience of privacy and dignity. Conflicting results were found for hospital infection rates and there was no evidence on recovery rates and patient safety.

3.3.14. Transparency

There are problems with extra billing as to transparency. Sometimes it is not clear for the patient when supplementary fees can be charged. In Belgium for instance, a regulatory framework has created transparency on supplementary fees for inpatient treatment, but this is not the case for ambulatory care.

There is little or no transparency about the extra value offered for the extra - supplementary - money paid. In Germany, supplementary fees exceeding 130% of the official tariff need to be motivated (in writing). In France and Belgium, such motivation is not obligatory.

3.3.15. Financial sustainability

Between 1998 and 2010, in Belgian hospitals, total bill for the patient for a 'classical' hospital stay (including minimum one night) has increased with 1.6% per year while total amount of supplementary fees has increased with 6.6% per year (both figures after adjusting for inflation) (CM, 2011). The share of supplementary fees in the total bill for the patient has increased from 20% to 35%.

In 2013, 23% of all 'classical' hospital stays were in a private room (CM, 2014). This percentage is likely to increase over the next years, since newly built hospital facilities typically provide 50% private rooms. With a majority of the Belgian population carrying an ad-

ditional hospitalisation insurance covering supplements in a private room, the demand for a private room is exceeding the offer.

Most supplementary fees are covered by additional private health insurance. When supplementary fees continue to rise, insurance premiums will need to follow suit. At a certain point in time, customers might no longer be ready to pay (ever) increasing insurance premiums to finance (ever) increasing supplementary fees.

3.4. PROHIBIT, REGULATE OR LAISSEZ-FAIRE?

How can it be explained that extra billing did survive the standardisation of fees driven by (universal) health insurance? When studying methods of payment used in public health care programs worldwide, Marmor and Thomas (1972) found that the methods for paying physicians are extraordinarily diverse but share a remarkably close resemblance to what physicians were used to before the programs began. The system of supplementary fees that enables physicians to charge more to richer patients is indeed a continuation of the former practice of physicians using sliding fee scales depending on the income of the patient.

The practice of extra billing can be prohibited (e.g. the Netherlands) or (almost) completely left alone ('laissez-faire') (e.g. Belgium and France). In between, a continuum of more or less restrictive regulation can be opted for.

3.4.1. Is a prohibition of extra billing feasible?

An argument that is often used in the discussion about extra billing is that official tariffs are too low and need to be compensated by the possibility to charge supplementary fees. Following this reasoning, an option could be to increase official tariffs so as to meet the sum of official tariffs plus supplementary fees. To that purpose, 1.2 billion EUR would need to be transferred from supplementary fees to official tariffs in Belgium. A 4% increase of government spending on health care could cover this transfer.

A complete ban on supplementary fees could lead to a two-tiered system consisting of a public system at the one hand and a private system at the other hand with private practices being only accessible for people willing to pay the full price out-of-pocket (or through additional health insurance). However, the success of these private practices would highly depend upon the functioning of the public sector. In the absence of waiting lists and concerns about the quality delivered in the public sector, private practices might not be very successful (Flood, 2006).

3.4.2. From laissez-faire to a more regulated system of extra billing?

From the previous section, it is clear that extra billing has some disadvantages. Extra billing can have an impact on access to new medical techniques and on access to time-consuming and complex procedures. There is an impact on waiting times. There is a lack of transparency about the supplementary fees charged and about the extra value offered for the extra money paid. There is a strong interaction between extra billing and additional health insurance. The last 10-20 years we have seen a sharp increase of supplementary fees charged in countries such as Belgium and France. A further increase might endanger the financial sustainability of the system of extra billing.

Regulation could provide a solution for the issues raised, i.e. equal access to health care, transparency and financial sustainability:

- restricting supplementary fees to a maximum limit (cf. Germany and France[92]);
- stimulating physicians to use a sliding scale when charging supplementary fees (according to the degree of difficulty and the time needed);
- having physicians and not hospital administrations decide upon the supplementary fees charged in hospitals;
- providing patients with information on the supplementary fees charged, also for outpatient care;
- implementing the German practice of a justification in writing might be considered for supplementary fees exceeding a certain limit[93];
- ensuring that treatment options are equally accessible for patients not able to pay supplementary fees (cf. breast reconstruction with own tissue, Mohs surgery).

Changes in regulation will need to be supported by the health care providers. As producers of a crucial service in industrial countries, and a service for which governments can seldom provide short-run substitutes, health care providers have the overwhelming political resources to influence decisions regarding payment methods (Marmor and Thomas, 1972).

92 On 23 October 2012, physicians' trade unions and health insurance agreed on a limit for supplementary fees of 1.5 times the official tariffs set by compulsory health insurance. Before, supplementary fee percentages could be as high as 500%.

93 For personal services, according to the degree of difficulty and the time needed, private patients can be charged up to 130% on top of the official tariff. For technical services, supplementary fees are limited to 80% and for laboratory tests 15% is the limit. When the medical problem is particularly difficult and time consuming, supplementary fees can attain 250% for personal services, 150% for technical services and 30% for laboratory tests. These higher supplementary fees need to be justified in writing. Exceptionally, these limits can be exceeded on the condition that a written contract is made with the patient ('Honorarvereinbarung'). (Verband der privaten Krankenversicherung. PKV-Info. *Die Gebührenordnung für Ärzte, ein kleiner Leitfaden*. http://www.dkv.com/downloads/die_gebuehrenordnung_fuer_aerzte_ein_kleiner_leitfaden.pdf, accessed 7 October 2015)

Health care providers are not likely to support a drastic change in the regulation of supplementary fees (such as a prohibition of extra billing), unless there is a compensation (e.g. in the form of an increase in government financing).

Normally, patients' willingness to pay supplementary fees should depend upon the value they get for the extra money spent. Supplementary fees can buy comfort, e.g. a private room in a hospital or a consultation at a convenient time, possibly a reduction in waiting time and access to well-reputed physicians. Patients paying supplementary fees might expect better quality to be offered. However, to the extent that patients cannot judge the quality of services, the efficiency of extra billing may be questionable (Kifmann and Scheuer, 2011). In the meantime, the willingness to pay supplementary fees for non-medical amenities such as shorter waiting times for non-urgent treatments, could be considered a consequence of the right to 'autonomy', namely people's right to spend their money as they choose.

3.5. CONCLUSION

Extra billing can be dealt with in three ways: prohibit, regulate or laissez-faire.

In the Netherlands, extra billing has been completely prohibited. U.S. Medicare[94] and private health insurers in Germany have regulated and restricted extra billing. In Belgium and France health care providers have a considerable freedom to charge supplementary fees.

Regulation sits on a continuum between a total ban and complete liberty. In the Netherlands, for instance, regulation eventually led to a prohibition of extra billing. Recently, new rules in Belgium (a ban on supplementary fees in double and common hospital rooms) and France (a limitation of supplementary fees to 150% on top of official tariffs) have been introduced to try to contain some of the negative effects of extra billing.

Governments can impose more regulation. Health care providers and payers can make agreements to voluntarily restrict extra billing. Creating more transparency about the practice of extra billing and the value created for the extra money paid, might also have a self-regulating effect.

94 Fees set by Medicare for physicians who have not enrolled in the participating provider program are 95% of the fees set for participating physicians. Total billed charges for non-participating physicians have been restricted to 115% of fees set by Medicare. Since the fee for non-participants is 95% of the fee for participants, physicians have effectively been permitted to balance bill their patients only 9.25% above the Medicare participating physician fee since 1993 (9.25 = [95 * 1.15 – 100] / 100) (McKnight, 2007.)

If extra billing is to be restricted or forbidden, special attention is to be given to the effect on the comfort of patients (e.g. waiting lists) and the income of health care providers (and hospitals).

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3.2. Supplementary physicians' fees: A sustainable system?

Calcoen, P. and van de Ven, W.P.M.M. (2018). Supplementary physicians' fees: A sustainable system? *Health Economics, Policy and Law,* 1–21. doi: 10.1017/S1744133117000548

ABSTRACT

In Belgium and France, physicians can charge a supplementary fee on top of the tariff set by the mandatory basic health insurance scheme. In both countries, the supplementary fee system is under pressure because of financial sustainability concerns and a lack of added value for the patient. Expenditure on supplementary fees is increasing much faster than total health expenditure. So far, measures taken to curb this trend have not been successful. For certain categories of physicians, supplementary fees represent one-third of total income. For patients, however, the added value of supplementary fees is not that clear. Supplementary fees can buy comfort and access to physicians who refuse to treat patients who are not willing to pay supplementary fees. Perceived quality of care plays an important role in patients' willingness to pay supplementary fees. Today, there is no evidence that physicians who charge supplementary fees provide better quality of care than physicians who do not. However, linking supplementary fees to objectively proven quality of care and limiting access to top quality care to patients able and willing to pay supplementary fees might not be socially acceptable in many countries. Our conclusion is that supplementary physicians' fees are not sustainable.

3.1. INTRODUCTION

Driven by the economics of medical practice prior to the spread of health insurance, physicians applied price discrimination by charging patients according to what they thought each patient could afford. The use of sliding fee scales persisted until widespread health insurance drove a standardisation of fees (Hall and Schneider, 2008). Nonetheless, supplementary fee systems continue to exist in countries with universal health insurance.

The goal of this paper is to answer the following questions: How can cost inflation of supplementary fees be contained? What is the added value of supplementary fees? Is a system of supplementary physicians' fees charged on top of social security tariffs sustainable?

The paper focuses on Belgium and France, and starts with an analysis of the system of supplementary fees in the two countries. Next, possible measures to curb cost inflation of supplementary fees are discussed. Further, the added value of supplementary fees is analysed, in particular the link between supplementary fees and quality of care. The paper concludes with a discussion of the future of supplementary fees in Belgium and France.

Definitions and terminology
A **supplementary fee** is an extra fee charged by health care providers on top of the tariff agreed upon by health insurance. This tariff may include a co-payment or co-insurance to be borne by the patient.
In Belgium, the term **'supplementary fee'** ('*ereloonsupplement*' [Dutch] / '*supplément d'honoraires*' [French]) is used for a fee charged on top of the official tariff set by social security.
In France, the term **'*dépassement d'honoraires*'** is applied.
In North America, the term '**extra billing'** or '**balance billing'** is used.

3.2. SUPPLEMENTARY FEES IN BELGIUM AND FRANCE

Before the spread of health insurance, physicians applied price discrimination by charging patients according to what they thought each patient could afford. Cross subsidies between the rich and the poor were organised by physicians on a micro level. Mandatory, universal health insurance established cross-subsidisation between the rich and the poor and between the healthy and the sick on a macro level. Health insurance has taken over the role of individual physicians in ensuring access to health care for the poor and the sick. Nonetheless, supplementary fees are still applied today in Belgium and France, two countries that have a long-standing history of universal health insurance.

In the following section, an analysis of the system of supplementary fees in Belgium and France will be presented. First, the regulatory framework for supplementary fees will be described. Second, the current situation will be discussed.

3.2.1. Belgium

3.2.1.1. Regulatory framework

The current system of supplementary fees saw the light in 1964, when basic health insurance became a mandatory part of the social security system.

The legal basis for charging supplementary fees can be found in the Health Care Professions Act, which states that practitioners can freely set their fees.[95] The Code of Medical Ethics provides that physicians should be moderate when determining their fees and be willing to explain to their patients why they are charging a certain fee.

As from 1964, an agreement on physicians' fees has been made every two years between the physicians' representative associations and the 'sickness funds' (not-for-profit entities providing mandatory basic health insurance).[96] Physicians can choose to adhere to the agreement ('conventioned' physicians) or they can choose not to adhere at all ('non-conventioned') or only to partially adhere, i.e., for certain well defined days and hours ('partially conventioned'). Partial conventioning is only possible for outpatient care. Conventioned physicians get an annual contribution from the social security system for their pension (4790 EUR in 2017).

Non-conventioned physicians are not bound by official social security tariffs. They are at liberty to charge supplementary fees on top of official tariffs. However, supplementary fees can never be charged for emergency care.

Since 1964, the biannual agreement between physicians and sickness funds has consistently listed situations in which conventioned physicians are at liberty to deviate from the official tariffs set by mandatory basic health insurance, i.e., for special demands made by a patient (e.g., a private room in a hospital or a consultation after 9 pm).

The agreement also allows conventioned physicians to charge supplementary fees for households whose taxable income exceeds 67636 EUR per year (figure for 2017).[97] However, since it may be rather awkward to ask patients for proof of their taxable income, physicians have not commonly used this possibility so far.

95 Art. 35 Health Care Professions Act (*Loi coordonnée du 10 mai 2015 relative à l'exercice des professions des soins de santé*), *Moniteur belge*, 18 June 2015, p. 35172.

96 According to article 50 of the Health Insurance Act (*Loi relative à l'assurance obligatoire soins de santé et indemnités coordonnée le 14 juillet 1994*), *Moniteur belge*, 27 August 1994, p. 21524.

97 Para. 11.4 National agreement between physicians and sickness funds 2016-2017 (*Accord national médico-mutualiste 2016-2017*), Institut national d'assurance maladie-invalidité (INAMI). Available at http://www.inami.fgov.be/fr/professionnels/sante/medecins/soins/Pages/accord-medico-mutualiste

All hospital physicians, both conventioned and non-conventioned, are allowed to charge supplementary fees to patients who are staying in a private room. As of January 1, 2013, the Belgian authorities have prohibited the charging of supplementary fees for patients staying at least one night in double and common rooms in hospitals.[98] As of August 27, 2015, supplementary fees have also been prohibited for one-day admissions in double or common rooms. Every hospital has to define a maximum percentage of supplementary fees that can be charged (expressed as a percentage of the official social security tariff). Since there is no limitation by law, hospitals are at liberty to set the maximum percentage of supplementary fees as high as they prefer.

Supplementary fees can be charged to rich and poor patients alike. Supplementary fees can be avoided by choosing a double or common room in a hospital and by consulting a conventioned physician during regular consultation hours for outpatient care.

In Belgium, according to the Patient Rights Act, a patient can freely choose his/her physician. Reciprocally, physicians are free to refuse treatment, except for urgent treatment (Nys, 2001; Vansweevelt and Dewallens, 2014). As a result, patients who refuse to pay supplementary fees may not be treated by the physician of their choice. Upheaval in the press about physicians pushing their patients towards private hospital rooms where they can charge supplementary fees,[99] eventually led to new legislation, which came into effect on 7 January 2017 and which prohibits hospital physicians from discriminating between patients who pay supplementary fees and those who do not.[100] Physicians can no longer refuse to treat patients who do not choose a private hospital room (supplementary fees being chargeable only to patients staying in a private room). The new law explicitly forbids hospital physicians to use waiting time to discriminate between patients who pay supplementary fees and those who do not. The law clearly states that every patient is entitled to the same quality of care whether or not he/she is paying supplementary fees.[101] However, as this new legislation applies to inpatient care

98 Several associations of physicians filed an appeal in the Belgian Constitutional Court against the prohibition of supplementary fees in double and common rooms. In its judgment of 17 July 2014, the Court stated that the new law respected the equilibrium between equal access to health care and an equitable income for physicians (with the new law allowing physicians to continue to charge supplementary fees in private rooms).

99 For instance, Belgian newspaper article (2016) 'Sonja moest van chirurg eenpersoonskamer nemen of ze werd niet geopereerd' (translation: Sonja had to take a private, one-bed hospital room or her surgeon would not operate), *Het Laatste Nieuws*, 28 November 2016. Available at http://www.hln.be/hln/nl/957/Binnenland/article/detail/3010975/2016/11/28/Sonja-moest-van-chirurg-eenpersoonskamer-nemen-of-ze-werd-niet-geopereerd.dhtml

100 Art. 112 Law of 18 December 2016 providing for different measures on health care (*Loi du 18 décembre 2016 portant des dispositions diverses en matière de santé*), *Moniteur belge*, 28 December 2016, p. 89736.

101 Art. 112 Law of 18 December 2016 holding different measures in health care (*Loi du 18 décembre 2016 portant des dispositions diverses en matière de santé*), *Moniteur belge*, 28 December 2016, p. 89736.

alone, physicians can still refuse to treat outpatients who are not willing or not able to pay supplementary fees.

3.2.1.2. Current situation

Currently, 84 per cent of all physicians adhere to the national agreement between physicians and sickness funds (INAMI, 2016a). For outpatient care, these conventioned physicians can only charge supplementary fees in case of special demands by the patient. For inpatient care, they can charge supplementary fees to patients staying in a private room. Physicians who have opted out of the national agreement between physicians and sickness funds (non-conventioned physicians) are at liberty to set their fees. However, for inpatient care they can only charge supplementary fees to patients staying in a private room. In 2015, 23 per cent of all patients stayed in a private room (Mutualité Chrétienne, 2016).

In hospitals, supplementary fees range between one and three times the official tariff. There is a wide variation in price-setting behaviour, which cannot be explained by observable hospital characteristics (Lecluyse *et al.*, 2009). There are also significant regional differences, with most Flemish hospitals charging 100 per cent of the official tariff, most Walloon hospitals 200 per cent and most Brussels' hospitals 300 per cent (Mutualité Chrétienne, 2016).

Table 1 shows that there is a huge span in private expenditure[102] between a private room and a double or common hospital room. The span can be explained through supplementary fees and –to a lesser extent– room charges, neither of which may be charged in a double or common room. Room charges for a private room vary between 18 and 164 EUR per day (Mutualité Chrétienne, 2016). In 2015, supplementary fees represented 61 per cent of private expenditure for a classic hospital stay in a private room (Mutualité Chrétienne, 2016).

Table 1. Average private expenditure for an admission in a Belgian hospital (EUR, 2015) (Source: Mutualité Chrétienne, 2016)

	Private room	Double or common room
Classic hospital stay (min. 1 night)	1463	278
Surgical one-day clinic	735	122
Non-surgical one-day clinic	437	25

102 Private expenditure comprises the health costs that are not covered by mandatory basic health insurance.

In 2012, the total amount of supplementary fees charged by physicians in Belgium represented 781 million EUR (381 million EUR for inpatient care and 400 million EUR for outpatient care) (Calcoen *et al.*, 2015).

3.2.1.3. Cost inflation

The total amount of supplementary fees charged for classic hospital stays in Belgian hospitals (including minimum one night) has increased by 7.1 per cent per year between 1998 and 2010. Over the same period, the total hospital bill for patients has increased by 3.0 per cent (Mutualité Chrétienne, 2011).[103] After inflation adjustment, supplementary fees have increased by 32 per cent between 2004 and 2015, whereas the total patient bill has decreased by 5 per cent (Mutualité Chrétienne, 2016).

Unfortunately, data on supplementary fees for outpatient care are scarce and do not allow an evaluation of changes over time.

3.2.2. France

3.2.2.1. Regulatory framework

The current system of supplementary fees was introduced in 1980. At the time, physicians demanded a higher income and the government decided not to increase the public health budget, but instead allowed physicians to charge supplementary fees ('*dépassements d'honoraires*') (Auguste, 2012).

In France, physicians can either receive a salary or be self-employed. The latter are called 'liberal physicians' ('*des médecins libéraux*'). Salaried physicians cannot charge supplementary fees.

Liberal physicians are divided in three categories or 'sectors' ('*secteurs*'). Sector 1 physicians are bound by the official social security tariffs. Sector 2 physicians are allowed to charge supplementary fees on top of social security tariffs. Sector 3 physicians operate outside the social security system. Their patients are not reimbursed by social security.

Sector 1 physicians need to respect the fees set in the national medical convention, which is concluded between mandatory basic health insurance and the representa-

103 The figures mentioned (7.1 per cent and 3.0 per cent) are compound annual growth rates. The figures are based on an analysis of all hospital bills of the members of the Christian Mutualities. On 31 December 2015, the Christian Mutualities covered 4,574,738 people or 41.2 per cent of the Belgian population (INAMI, 2016b).

tive associations of liberal physicians.[104] Sector 1 physicians are allowed only to charge supplementary fees in case of 'special demands' made by the patient, for instance, for a consultation outside normal hours.

Liberal physicians need to choose whether they wish to adhere to the convention (sector 1 or 2) or not (sector 3). If they adhere to the convention, they need to choose between sector 1 and 2 when they first start a practice. Only physicians who hold certain titles – for instance, 'chief resident', 'resident' or 'assistant' (both active in hospitals or as a general practitioner)– can opt for sector 2.[105]

It is not permitted to charge supplementary fees to patients who get subsidies from the government for additional health insurance.[106]

The College of Physicians states that physicians ought to determine their fees with tact and moderation ('*avec tact et mesure*').[107] Physicians ought to use four criteria: (1) the financial capacity of the patient; (2) the time needed and complexity of the intervention; (3) the reputation of the physician; (4) particular demands of the patient. Physicians need to give their patients written information for all fees exceeding 70 EUR.

In May 2012, the College of Physicians issued a recommendation, providing that a limit of 3 or 4 times the official social security tariff should be respected when charging supplementary fees.[108]

In France, there are 2 types of hospitals: public ('*hôpital [public]*') and private ('*clinique [privée]*'). Charging supplementary fees is a common practice in private hospitals but is also possible in public hospitals. Physicians working in public hospitals are allowed to have a 'private practice' ('*activité privée*') for a maximum of 20 per cent of their time. However, it is not easy to verify compliance with this 20 per cent limit (Auguste, 2012). Part of the supplementary fees charged in private and public hospitals goes to the hospital

104 National convention between liberal physicians and social security. 27 August 2016. Available at https://www.legifrance.gouv.fr/jo_pdf.do?cidTexte=JPDF23102016000000010&categorieLien=id

105 Art. 38.1.1 National convention between liberal physicians and social security. 27 August 2016.

106 In 2014, 7.4 per cent of those covered by additional health insurance benefited from a public programme providing free coverage to the poorest ('*Couverture Universelle Maladie complémentaire*' ['*CMU-c*']). Individuals with an income just above the CMU-c ceiling can get a voucher to partially fund the premium for an additional health insurance contract ('*l'Aide au paiement d'une Complémentaire Santé*' ['*ACS*']).

107 Art. R.4127-53 Public Health Law. Available at https://www.conseil-national.medecin.fr/article/article-53-tact-et-mesure-277

108 College of Physicians. Recommendation available at https://www.conseil-national.medecin.fr/article/acces-aux-soins-recommandations-du-cnom-1185

in return for using hospital accommodation, equipment and personnel. This is also the case in Belgium.

3.2.2.2. Current situation

Whereas for Belgium no public data on supplementary fees are available, for France both social security (Sécurité sociale, 2016b) and a public agency providing technical information on hospitals[109] collect data on supplementary fees and make them available to the public.

59 per cent of all general practitioners and 46 per cent of all specialists work as 'liberal physicians' (Barlet and Marbot, 2016). 25.3 per cent of liberal physicians are sector 2 physicians who are allowed to charge supplementary fees on top of official social security tariffs: 43.4 per cent of all specialists and 9.0 per cent of all general practitioners. The majority of surgeons (79.9 per cent) and gynaecologists (58.9 per cent) work in sector 2. Sector 1 physicians –73.9 per cent of liberal physicians– are bound by social security tariffs. 912 physicians, representing 0.8 per cent of all liberal physicians, choose to work in sector 3 (Sécurité sociale, 2016a).[110]

Whereas only 38 per cent of all hospital beds in France are private,[111] 62 per cent of all surgical interventions in France are performed in private hospitals.[112] Supplementary fees are applied for about half of all surgical procedures in France (Barlet and Marbot, 2016). For instance, supplementary fees are charged for 60 per cent of all cataract operations in private hospitals. For cataract operations, supplementary fees represent on average 79 per cent of the official tariff.[113] In 2014, a total of 805 million EUR of supplementary fees was charged in private hospitals. [114] In public hospitals, this figure was 69 million EUR (Clavreul, 2014).

109 Agence technique de l'information sur l'hospitalisation. Information available at http://www.atih.sante.fr/depassements-d-honoraires

110 All figures for 2014 (situation on 31 December 2014).

111 Association of hospitals. Information available at https://www.hopital.fr/Nos-Missions/L-hopital-au-sein-de-l-organisation-generale-de-la-sante/Les-etablissements-publics-de-sante

112 Federation of private hospitals. Information available at http://www.fhp-lr.com/Federation-Hospitalisation-Privee/Les-cliniques-privees/Le-secteur-MCO/Le-Secteur-MCO-fer-de-lance-de-l-hospitalisation-privee_47_.html

113 Figure retrieved from http://www.66millionsdimpatients.org/depassements-dhonoraires-en-cliniques-restes-a-charge-au-menu/

114 Figures on private hospitals (*'cliniques'*) retrieved from http://www.66millionsdimpatients.org/depassements-dhonoraires-en-clinique-les-chiffres-de-laugmentation/ and from http://www.66millionsdimpatients.org/depassements-dhonoraires-en-cliniques-restes-a-charge-au-menu/

In 2014, supplementary fees amounted to 2.8 billion EUR in France. The bulk of supplementary fees, 2.5 billion EUR was charged by specialists, whereas only 300 million EUR was charged by general practitioners (Sécurité sociale, 2016b).

3.2.2.3. Cost inflation

The percentage of liberal physicians working in sector 2, who are authorised to charge supplementary fees, has slightly increased from 24.7 per cent in 2000 to 25.3 per cent in 2014. While the percentage of general practitioners working in sector 2 has decreased from 13.9 per cent to 9.0 per cent, the percentage of specialists working in sector 2 has increased from 37.1 per cent to 43.4 per cent (Sécurité sociale, 2016b). Today, 59 per cent of all new medical specialists choose to work in sector 2 (Barlet and Marbot, 2016).

Average supplementary fees in sector 2 have risen from 25 per cent of official tariffs in 1990 to 54 per cent in 2010 (Léchenet, 2012).

Between 2011 and 2015, the total amount of supplementary fees in private hospitals has risen from 676 million EUR to 867 million EUR (+ 28 per cent).

In 2014, total supplementary fees charged by physicians amounted to 2.8 billion EUR (Sécurité sociale, 2016b), while in 2011 the figure was 2.4 billion EUR (Auguste, 2012).

3.2.3. Additional health insurance

In Belgium, additional health insurance mainly covers hospital costs. Therefore, the term 'hospitalisation insurance' is used. About 75 per cent of Belgians have such hospitalisation insurance. The bulk of supplementary fees in hospitals is covered by hospitalisation insurance. About 95 per cent of the French have an additional health insurance, covering a broad range of inpatient and outpatient health care services. In France, additional health insurance reimburses both inpatient and outpatient supplementary fees.

Cost inflation of supplementary fees leads to higher premiums for additional health insurance. In Belgium, for instance, as a result of recent increases in supplementary fees, two insurers have applied premium rate increases for their additional hospitalisation insurance products of 16 per cent and 47 per cent respectively (Sury, 2016).

Additional insurance can also have an inflationary effect on supplementary fees. People holding additional health insurance may be less price-sensitive. Knowing that a patient is additionally insured may lead health care providers to charge higher fees. Dormont and Péron (2016) showed that the average amount of supplementary fees charged for a consultation to patients holding additional health insurance contracts covering

supplementary fees increased by 32 per cent. Insurance also led to an increase of 9 per cent in the number of consultations with specialists who charge supplementary fee. Feldstein (1970) was one of the first to note that widespread health insurance can lead to an increase in the price of health care, which undermines the value of insurance and decreases consumer welfare.

3.2.4. Belgium versus France

In Belgium, proportionally more supplementary fees are charged compared to France (see table 2).

Table 2. Supplementary fees in Belgium and France (2012)

	Belgium		France	
	Total	Average per inhabitant	Total	Average per inhabitant
Supplementary fees charged for outpatient care	€400 million	€36	€1851 million	€28
Supplementary fees charged in hospitals	€381 million	€34	€793 million	€12
Total supplementary fees	€781 million	€70	€2644 million	€40

Sources: Calcoen *et al.*, 2015; DREES; Eurostat

Table 3 shows that the most important differences between Belgium and France are related to the 'convention' status of the physician –i.e., whether the physician has signed the national agreement between physicians and mandatory basic health insurance– and the possibility for the physician to refuse to treat patients who are not willing or not able to pay supplementary fees.

Table 3. Regulatory framework for supplementary fees in Belgium and France

	Belgium	France
Are supplementary fees linked to the 'convention' status of the physician?	Yes, but only for outpatient care	Yes, for outpatient and inpatient care
Are supplementary fees for inpatient care linked to a private room in a hospital?	Yes	No
Do physicians need to be moderate when determining supplementary fees (College of Physicians)?	Yes	Yes
Are persons with low incomes exempt from supplementary fees?	No	Yes
Can physicians refuse to treat patients who refuse to pay supplementary fees?	Outpatient care: yes; inpatient care: no	Yes

3.3. MEASURES TO CURB COST INFLATION

Both in Belgium and in France, there is much concern about the financial sustainability of the supplementary fee system. Expenditure on supplementary fees increases at a pace that exceeds the rate at which total expenditure on health care is increasing. Both in Belgium and in France, the bulk of supplementary fees is covered by additional health insurance. Sustained rapid growth of supplementary fees leads to sharp increases in premiums for additional coverage. Several measures can be taken to reverse this trend. In this section, we will give an overview of measures to curb cost inflation of supplementary fees (see table 4). Some measures involve regulation by the authorities. Other measures –i.e., 3.6, 3.7, 3.8 (and 3.4)– are initiatives which can be taken by additional health insurance providers.

3.3.1. Prohibiting supplementary fees

As from 1 January 2013, supplementary fees can no longer be charged in double and common rooms in Belgian hospitals. However, this has not led to a reduction of supplementary fees, since more supplementary fees have been charged in private rooms. Between 2013 and 2015, supplementary fees have increased by 9.7 per cent (Mutualité Chrétienne, 2016).

Physicians wish to maintain their income. Therefore, when a particular source of revenue is no longer available, other sources are likely to be increasingly exploited. For instance, if supplementary fees were to be completely forbidden in hospitals, there might be a shift towards the outpatient sector.

An alternative to supplementary fees is an increase in fees paid by mandatory basic health insurance. This has been implemented in the Netherlands. During several decades of fee regulation by the Dutch government, supplementary fees gradually converged to zero, without seriously reducing the income of medical specialists. In 2012, Dutch medical specialists earned more than their colleagues in neighbouring countries, such as Belgium, Denmark and Germany (Kok *et al.*, 2015).

3.3.2. Setting indicative/reference tariffs for supplementary fees

On 25 October 2012, an agreement on supplementary fees was signed by the professional association of additional health insurers, the representative associations of liberal physicians and mandatory basic health insurance in France.[115] Under this agreement, the

115 Cf. annex no. 8 to the national agreement signed on 26 July 2011 by the liberal physicians and health insurance (*Avenant n° 8 à la convention nationale organisant les rapports entre les médecins libéraux et*

total amount of supplementary fees charged by a physician during one year should not exceed 150 per cent of the total social security tariffs charged in that same year. The 150 per cent mark is an average over a whole year, meaning that a physician can continue to charge high supplementary fees, e.g., 400 per cent, as long as at the end of the year the average is close to 150 per cent. However, sanctions for exceeding the 150 per cent reference have not been defined and have not been applied.[116] So far, this measure has not resulted in a reduction of supplementary fees.

In Belgium, the current national agreement between the physicians' representative associations and the sickness funds stipulates that a mechanism of indicative tariffs for supplementary fees is to be studied.[117]

3.3.3. Introducing supply-side restrictions

On 25 October 2012, an agreement on supplementary fees was signed in France by the professional association of additional health insurers, the physicians' representative associations and mandatory basic health insurance (see above). In addition to the 150 per cent reference for supplementary fees, the agreement introduced the 'access to care contract' ('*contrat d'accès aux soins*').[118] A sector 2 physician who signs this contract agrees not to increase supplementary fees above the average supplementary fees he/she charged in 2012 (with a limit of 100 per cent of social security tariffs). He/she also guarantees not to decrease the part of his/her activity where no supplementary fees are charged. In return, part of the social security contributions of the participating physician is paid by the government. Additional health insurers promised to improve the mechanisms for reimbursing supplementary fees charged by physicians who have signed the contract. The parties to the 2012 agreement stated that social security tariffs ought to be increased in order to decrease the need to charge supplementary fees.

Unfortunately, the introduction of the 'access to care contract' has not led to a containment of supplementary fees. The total amount of supplementary fees has increased by 6.6 per cent between 2012 and 2014 (Béguin, 2015). Supplementary fees in private hospitals have increased from 724 million EUR in 2012 to 866 million EUR in 2015 (+ 19.7

l'assurance maladie signée le 26 juillet 2011), Paris, 25 October 2012. Available at https://fr.wikipedia.org/wiki/Avenant_n%C2%B08_%C3%Ao_la_convention_m%C3%A9dicale

116 Roucous, D. La vérité sur les honoraires des médecins et leur remboursement. L'Humanité. 11 February 2016. Available at https://www.humanite.fr/la-verite-sur-les-honoraires-des-medecins-et-leur-remboursement-598348

117 Para. 4.3 National agreement between physicians and sickness funds 2016-2017 (*Accord national médico-mutualiste 2016-2017*), Institut national d'assurance maladie-invalidité (INAMI). Available at http://www.inami.fgov.be/fr/professionnels/sante/medecins/soins/Pages/accord-medico-mutualiste

118 As from 1 January 2017, the 'access to care contract' has been renamed: 'l'option pratique tarifaire maîtrisée' (OPTAM).

per cent).[119] Physicians who wish to continue to charge high supplementary fees stay out of the contract. Physicians who sign the contract carry on with their current practice. As the number of medical specialists choosing to work in sector 2 is increasing, so is total amount of supplementary fees.[120] In addition, sector 1 chief residents have been allowed to sign the contract as well, which creates additional cost inflation (UFC, 2013). Only 27 per cent of all physicians –and 23 per cent of medical specialists– working in sector 2 have signed the 'access to care contract'. Of the sector 2 ophthalmologists and surgeons, 10 and 15 per cent respectively adhere to the 'access to care contract'.[121] From these figures, it is clear that the 'access to care contract' has not been a success so far.

3.3.4. Capping supplementary fees

In neither Belgium nor France has a maximum limit for supplementary fees been defined by law. Physicians are free to charge supplementary fees, which can be as high as 500 per cent or more of social security tariffs.

In Belgium, every hospital must define a maximum limit for supplementary fees, to be respected by all physicians working in that hospital. However, this maximum limit can be easily adapted, by a simple decision of hospital management.

A legal cap on supplementary fees might be an effective measure, since there is no escape route (apart from increasing the frequency of charging supplementary fees). In October 2016, an agreement was reached in Belgium by physicians and sickness funds, limiting supplementary fees for breast reconstruction to 100 per cent of social security tariffs. This measure has been beneficial to breast cancer patients, i.e., those who do not enjoy additional health insurance.

In France, the system of 'access to care contracts' (see above) has far-reaching consequences for the reimbursement of supplementary fees by additional health insurance. Most additional health insurance contracts in France are so-called 'solidarity contracts'. Solidarity contracts are exempted from a 7 per cent solidarity tax on additional health insurance contracts. Since 1 January 2016, employers have been obliged to offer an additional health insurance contract ('*complémentaire santé*') to their employees. For solidarity contracts, no social taxes ('*charges sociales*') are due on the part of the premium paid by the employer and the part paid by the employee is tax deductible. Contracts

119 Figures retrieved from http://www.66millionsdimpatients.org/depassements-dhonoraires-en-cliniques-restes-a-charge-au-menu/

120 Average supplementary fees charged by their specialty in their region is the reference for new entrants.

121 Mercer (2016). https://www.mercer.fr/content/dam/mercer/attachments/private/nurture-cycle/fr-2016-barometre-sante-bilan-acces-soins-hb-mercer.PDF

which do not qualify as 'solidarity contracts' are more expensive for both the employer and the employee. Solidarity contracts aim at reducing supplementary fees charged by sector 2 physicians who have not signed the 'access to care contract'. Reimbursement of supplementary fees by a solidarity contract is limited to 100 per cent of social security tariffs. This is the same limit to be respected by physicians who have signed the 'access to care contract'.

So far, solidarity contracts have not succeeded in reducing total amount of supplementary fees charged. This is due to the limited number of physicians who have signed the 'access to care contract'. In addition, the 100 per cent limit for supplementary fees can be circumvented by buying a 'supplementary' additional health insurance contract ('*surcomplémentaire santé*'). Such 'supplementary' additional health insurance provides coverage for supplementary fees that exceed the 100 per cent limit of 'solidarity' contracts. A '*surcomplémentaire santé*' can be bought by an individual as an add-on to his or her additional health insurance or by the employer as an employee benefit.

Additional health insurers can also decide on their own initiative to cap reimbursement of supplementary fees. In Flanders-the northern, Dutch speaking region of Belgium- for instance, reimbursement of supplementary fees has been capped at 100 per cent by the Christian Mutuality, one of the largest providers of additional health insurance.

3.3.5. Restricting differences in quality of care

Perceived quality of care has an important effect on willingness to pay supplementary fees. Due to this effect, regulating (i.e., limiting) physicians' ability to provide better quality of care for patients who pay supplementary fees could help to curb cost inflation. On 7 January 2017, new legislation came into force in Belgium, providing that, in hospitals, every patient is entitled to the same quality of care irrespective of supplementary fees being paid or not. However, the success of these regulations will depend on their enforceability. So far, there has been little or no effect on the supplementary fee system in Belgium.

3.3.6. Negotiating supplementary fees by additional health insurance

Social security tariffs are the result of negotiations on a national level between health insurers and physicians' representative associations. This is not the case for supplementary fees, which are charged on top of social security tariffs. In theory, the patient could discuss prices with his or her physician. However, in practice, this is not likely to be very successful because of the asymmetrical relationship between patient and physician. When additional health insurance reimburses supplementary fees, additional health

insurers could negotiate supplementary fees with the physicians' representative associations. Clout would increase if additional health insurers would join forces.

3.3.7. Counteracting moral hazard by additional health insurance

Insurance providing coverage for supplementary fees creates moral hazard. Insurance that makes all care free of out-of-pocket spending leads to nearly 50 per cent greater spending (Pauly, 2007). Moral hazard can be reduced by cost-sharing arrangements such as deductibles and co-insurance and by managed care (e.g., negotiating supplementary fees, see above). Recently, 150-175 EUR deductibles have been applied in Belgium. Co-insurance has not yet been introduced. However, substantial co-insurance, e.g., 25 per cent, could be particularly effective in fighting excessive supplementary fees. Probably the most effective means of combatting excessive prices is for the insured to be required to retain a sufficiently large share of the risk that it is in his immediate interest to resist outrageous prices (Berliner, 1982).

3.3.8. Taking legal action against excessive supplementary fees

Patients can go to court to fight excessive supplementary fees. In Belgium and France, legal action can be based on the deontological code which states that physicians should be 'moderate' when determining their fees. In both countries, civil actions are possible based on the good faith principle in contractual relationships and the prohibition on abuse of a dominant position ('*la lésion qualifiée*'). There may also be a role there for the insurer. If amounts are claimed under insurance policies which are excessive, the insurer should not shy away from legal action. Judgments of higher courts, i.e., supreme court judgments, could have an important effect on the supplementary fee system.

3.3.9. Conclusion

Several measures to curb cost inflation of supplementary fees can be implemented by both the authorities and the insurers. In Belgium and France, several measures have not yet been implemented or only to a limited extent (see Table 4). In France, more measures have been implemented than in Belgium. So far, measures that have been implemented in these countries have not yet resulted in a stabilisation or a reduction of supplementary fees.

Table 4. Measures to curb cost inflation of supplementary fees

Initiated by the authorities	**Belgium**	**France**
Prohibiting supplementary fees	✓[a]	✓[a]
Setting indicative/reference tariffs for supplementary fees	-	✓
Introducing supply-side restrictions	-	✓
Capping supplementary fees	-	-
Capping reimbursement of supplementary fees by additional health insurance	-	✓
Restricting differences in quality of care	✓[b]	-
Initiated by insurers	**Belgium**	**France**
Capping reimbursement of supplementary fees	✓	✓
Negotiating supplementary fees	-	-
Applying deductibles	✓	-
Applying co-insurance	-	-
Taking legal action against excessive supplementary fees	-[c]	-[c]

[a] Both in Belgium and in France, supplementary fees have only been prohibited for limited groups (e.g., people who get subsidies to buy additional health insurance) or in certain circumstances (e.g., emergency care)

[b] Since January 2017, physicians may no longer discriminate between patients who pay supplementary fees and those who do not. This legislation applies to inpatient care alone. The new rules are not well known by the public. So far, they have not been enforced.

[c] Legal action has only been taken by individuals in isolated cases. There are only judgments from lower courts.

3.4. ADDED VALUE OF SUPPLEMENTARY FEES

Historically, both in Belgium and in France, the system of supplementary fees was introduced to allow physicians to increase their revenue. Hence, the added value of supplementary fees for the physician is clear: a source of (extra) income. However, the added value for the patient is not clear.

In the 1990s, the Belgian courts already dealt with the issue of whether the system of supplementary fees linked to the use of a private hospital room could be justified from a legal standpoint. Two courts –in 1993 and in 1997 respectively– ruled that supplementary fees are not acceptable unless additional health services are provided by the physician (*'qu'il existe un "supplément" de prestations en contrepartie du "suppléments d'honoraires"'*).[122] The judges stated that extra services needed to be provided for the extra money paid in order for the supplementary fees to be justified (*'quid pro quo'*). Since the two courts ruled at first instance, the judgments only had a limited impact.

122 Court of first instance Antwerp 27 May 1993 (*Rechtbank van eerste aanleg Antwerpen*), *DCCR* 1994, 762. Court of first instance Liège 12 November 1997 (*Tribunal de première instance Liège*), *JLMB*, 1999, 277.

3.4.1. Added value for the physician: extra income

For certain categories of self-employed medical specialists, supplementary fees constitute a substantial part of their income (see table 5). Supplementary fees represent respectively 35 per cent and 32 per cent of the total income of Belgian and French surgeons.

Table 5. Supplementary fees as a percentage of gross income of sector 2 physicians (France)/self-employed physicians (Belgium) providing inpatient care in 2010 (DREES, 2012; Swartenbroekx, 2012).

	France	Belgium
Specialism	**% of gross income**	**% of gross income**
Stomatology	45.6%	15.9%
Surgery	31.9%	34.7%
Gynaecology	29.5%	34.9%
Ophthalmology	25.3%	10.1%
Oto-rhino-laryngology	20.8%	12.3%
Anaesthesia	16.7%	31.5%
Paediatrics	16.7%	21.1%
Psychiatry	16.6%	4.2%
Gastro-enterology	11.6%	11.5%
Radiology	4.0%	13.4%
Cardiology	4.0%	15.0%
Pneumology	4.0%	5.8%

Both in Belgium and France, hospitals also benefit from supplementary fees. In most hospitals, physicians have to cede a certain percentage of their supplementary fees to the hospital to help finance overhead costs.

3.4.2. Added value for the patient?

Whereas the added value for the physician is clear, this is not the case as far as the patient is concerned.

3.4.2.1. Comfort and access

Patients willing to pay supplementary fees may be offered convenient consultation hours late at night or comfortable private rooms in hospitals. However, while it is understandable that a patient might have to pay extra to the hospital for the use of a luxurious private room, it is difficult to understand why he/she should pay extra to the physician for staying in a private room.

A physician can refuse to treat a patient if he/she is not willing to pay the supplementary fees charged by that physician. Dormont and Péron (2016) found that French patients

might choose to consult sector 2 specialists, who can charge supplementary fees, because they have difficulties in gaining access to other physicians, i.e., sector 1 specialists who do not charge supplementary fees. If, in a certain region, there are fewer sector 1 specialists, patients face search costs, waiting time and transportation costs in order to consult a specialist who does not charge more than the regulated fee.

3.4.2.2. Quality of care – pay for performance

In a theoretical study (Glazer and McGuire, 1993), it has been argued that restrictions on supplementary fees come at a price as physicians have an incentive to reduce the quality of their services. A physician can be regarded as making two choices to maximise profit: the price for the price-paying patients (patients willing to pay extra), and the quality for the fee-only patients (patients not willing to pay extra). Physicians' equilibrium choice of quality and price depends on the level of fee set by the regulator. When the fee is low enough, no patient will be taken at the fee only. When the fee is high enough, no patient will be charged extra. When the fee is set in the range between these two fee levels, some patients are served for the fee, but the quality to the fee-only patients is less than or equal to the quality for the price-paying patient. Kifmann and Scheuer (2011) applied the findings of Glazer and McGuire to Medicare in the U.S. They studied the effects of 'balance billing', i.e., allowing physicians to charge a fee from patients in addition to the fee paid by Medicare. In contrast to Glazer and McGuire (1993), they found that allowing balance billing generally is not superior as balance billing allows physicians to increase their rents. An empirical study of the effects of Medicare restrictions on extra billing in the late 1980s and early 1990s was performed by McKnight (2007). She found that these restrictions reduced out-of-pocket medical expenditure of Medicare beneficiaries by 9 per cent. With the exception of a significant fall in the number of follow-up telephone calls, her study showed little evidence that physicians changed their behaviour in response to the extra billing restrictions.

In Belgian hospitals, supplementary fees are linked to the use of a private room. A review of the literature found that private rooms have a moderate effect on patient satisfaction with care, noise and quality of sleep, and the experience of privacy and dignity (van de Glind *et al.*, 2007). Conflicting results were found for hospital infection rates. In addition, there was no evidence on recovery rates and patient safety. In France, the thriving of sector 2 medical specialists, who can charge supplementary fees, may be due to patients believing that these physicians provide better quality of care (Dormont and Péron, 2016). The idea that an expensive physician must be an excellent physician might play a role. Value might also be attributed to supplementary fees by patients believing that extra payments for physicians motivate them to go the extra mile.

Today, quality of care is high up on the political agenda. Donabedian's (1997) structure-process-outcome model for quality of care is widely accepted. Information technology enables and facilitates the collection and the use of data to measure and to follow up on quality of care. For instance, in the United States, the Core Quality Measure Collaborative, led by public health plans, commercial insurers, providers and consumers, is trying to reach consensus on core performance measures (CMS, 2016).

Pay-for-quality or pay-for-performance payment methods were introduced several years ago (e.g., Epstein, 2004). The pay-for-performance model offers financial incentives to providers to improve quality and efficiency. Typically, incentives are paid on top of the standard fee-for-service compensation if the provider meets or exceeds certain pre-established metrics of performance. For instance, the 'physician value modifier program' rewards physicians with bonus payments when their performance attains specified measures of quality and cost (Baird, 2016).

The question is whether supplementary fees could play a role in the implementation of a pay-for-performance model? In the past, patients had little objective data at their disposal on the quality of health care services provided by an individual physician. Today, such data are being made available. Processing such data can provide objective information on the quality of care provided by an individual physician. As long as there is no transparency on the quality of care provided by physicians, physicians can charge supplementary fees even if the quality of care they provide is substandard. With more transparency being created on the quality of care provided, it is likely that the value of supplementary fees will increasingly be questioned in the future. It can be expected that patients will only be willing to pay supplementary fees for physicians who effectively provide above standard quality of care. But then another problem will arise. If supplementary fees are to be linked to objectively and transparently demonstrated top quality, a problem of equal access to care will arise. Limiting access to top quality care to patients who are able to pay supplementary fees is in contradiction with the principle of equal access to care. Equal access to health care is at the core of equity in health which implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be at a disadvantage in achieving this potential, if it can be avoided (Whitehead, 1992).

A two-tiered system, with better quality only available to those who are able and willing to pay extra, is considered to be socially undesirable in many countries.

3.4.2.3. Conclusion

Patients who pay extra money expect extra value. Convenient consultation hours late at night may represent added value. Location can also play a role in patients' willingness to pay supplementary fees. Patients face search costs, waiting time and transportation costs to consult with a physician who does not engage in extra billing in regions where physicians who stick to social security tariffs are scarce.

Perceived quality of care plays an important role in patients' willingness to pay supplementary fees. Growing availability of objective data on quality of care might well be a game changer. In future, physicians will increasingly need to justify why they charge a higher price. Limiting access to objectively proven top quality care to patients able and willing to pay supplementary fees may not be socially acceptable in many countries. In these countries, it is unlikely that governments will choose for supplementary fees to be used as an incentive for physicians to provide better quality of care.

3.5. CONCLUSION

In some countries, such as Belgium and France, physicians can charge a supplementary fee on top of the tariff set by basic health insurance.

Both in Belgium and in France, there is much concern about the financial sustainability of the system of supplementary fees. Expenditure on supplementary fees is increasing at a pace that exceeds the rate at which total expenditure on health care is increasing. Both in Belgium and in France, the bulk of supplementary fees is covered by additional health insurance. Sustained rapid growth of supplementary fees leads to sharp increases in premiums for additional coverage.

In section 3, we discussed measures to contain cost inflation of supplementary fees. Supplementary fees can be prohibited for certain categories of patients (e.g., persons with low incomes) and in certain situations (e.g., emergency care). Reference tariffs can be set and supplementary fees can be capped. Supply-side restrictions can be introduced and differences in quality of care can be limited. Insurers providing coverage for supplementary fees also have an important role to play. Coverage of supplementary fees can lead to both patient-induced and physician-induced moral hazard. Therefore, insurers ought to effectively counteract moral hazard by implementing measures such as co-insurance, deductibles and managed care. So far, measures implemented in Belgium and France have not yet resulted in a stabilisation or a reduction of supplementary fees.

The added value of supplementary fees for the physician is clear: extra income. However, for the patient added value of supplementary fees is not clear. Supplementary fees can buy comfort, e.g., convenient consultation hours. Physicians can refuse to treat patients who are not willing or able to pay supplementary fees. However, there is no evidence that physicians who charge supplementary fees provide a higher quality of care than physicians who do not.

Today, supplementary fees are not based on hard, publicly available data on quality of care. With information on differences in quality of care offered by individual physicians becoming more readily available, more transparency on the added value of supplementary fees will be created. Physicians will have to prove that they are 'worth the extra money'. However, limiting access to –objectively proven– top quality physicians to patients who can afford to pay supplementary fees, is in contradiction with the principle of accessibility of care. To do so would be to create a two-tiered health care system where only those who can pay supplementary fees out-of-pocket or take out private additional health insurance to cover supplementary fees have access to the best physicians. In many countries, this is considered to be socially unacceptable.

Our conclusion is that supplementary physicians' fees are not sustainable.

Since supplementary fees constitute an important source of revenue for certain medical specialists and physicians are a strong lobby group, a policy gradually restricting supplementary fees might be preferable. Today, both in Belgium and in France, the first steps in limiting supplementary fees have already been set. With the lack of added value for the patient becoming more apparent, this process is likely to continue over the next few years.

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4. Access to new health technologies

Calcoen, P., Boer, A. and van de Ven, W. P. M. M. (2017). Should new health technology be available only for patients able and willing to pay? *Journal of Market Access and Health Policy,* **5**(1): 1315294. doi: 10.1080/20016689.2017.1315294

ABSTRACT

New health technology comes on the market at a rapid pace and –sometimes– at a huge cost. Providing access to new health technology is a serious challenge for many countries with mandatory health insurance. Should new health technology be available for all, for nobody, or only for those who are able and willing to pay out-of-pocket?

This article analyses access to new health technology in Belgium and the Netherlands, using eight concrete examples as a starting point for comparing the two –neighbouring– countries. Contrary to the Netherlands, out-of-pocket payments for new health technology are widely accepted and practiced in Belgium. This difference is largely the result of different regulatory environments. A major difference is the way that entitlements to care are described: closed and explicit in Belgium versus open and non-explicit in the Netherlands. The characteristics of in-kind policies versus reimbursement policies also play a role.

Allowing out-of-pocket payments for new health technology has consequences for the patients. It leads to greater access to new health technology (for those who are able and willing to pay), but has a negative effect on equal access to care. Choice and transparency are enhanced by allowing out-of-pocket payments for new health technology.

It could be argued that lack of coverage by mandatory health insurance should not render private access to new health technology impossible.

4.1 INTRODUCTION

In many countries with mandatory health insurance a serious challenge is how to deal with new health technology, for example, an innovative hip prosthesis, a computerised prosthetic leg, robot-assisted cardiac surgery, non-invasive prenatal testing and new cancer medicines and orphan drugs. While mandatory health insurance generally covers a broad range of health technology, new technology may not be –readily– covered because of budgetary reasons or because there is no unanimity (yet) about the evidence-based character or the medical necessity. In case of doubt, national health authorities can decide not to cover a new health technology, even if the technology has been acknowledged by health technology assessment centres and/or is covered by health insurers in other countries.

Should new health technologies –that have proved at least an acceptable level of evidence– be available for all, possibly with some cost-sharing, or only for those who are able and willing to pay the full cost?

Using two neighbouring countries (Belgium and the Netherlands) as case studies, we will discuss and analyse different options for policy makers to deal with new health technology. In Belgian hospitals there are lists with out-of-pocket payments for well-defined health technologies available for the patient [1,2]. Whereas standard treatment A is covered by mandatory basic health insurance, for treatment B, applying new health technology, one must pay the listed additional out-of-pocket payments. For examples of such treatments B in Belgium, see table 1.

Table 1. Health technology available to patients but to be financed out-of-pocket (Belgium) (2015)

New health technology	Price (to be paid out-of-pocket)
Robot-assisted coronary bypass surgery (da Vinci) [3]	€1200
Trabecular metal acetabular revision system (Zimmer) (revision hip replacement surgery) (2011–2014) [4]	€2569
Cervical intervertebral disc prosthesis (cervical degenerative disc disease or herniated disc) [1]	€2776
Microprocessor-controlled prosthetic leg (Genium) [3]	€27177
MammaPrint (gene assay for breast cancer patients) [3,5]	€2675
Non-invasive prenatal testing (NIPT) (serum marker screening for certain chromosomal abnormalities in a developing foetus) [1]	€460
Ofatumumab (Arzerra) 300 mg + (7*1,000 mg) or 300 mg + (11*2,000 mg) (orphan drug to treat chronic lymphocytic leukaemia) [6,7,8]	€17875 – €54604
Nivolumab (Opdivo) 3 mg/kg every two weeks (6 months treatment) (cancer medicine to treat adults with melanoma or lung cancer) [6,7,8]	€48972

In Belgium there is an enumerative, limitative list of medical goods and services covered by mandatory health insurance (Dutch: 'nomenclatuur van de geneeskundige verstrekkingen'). Whether a new technology gets on this list, is being decided by the national health authorities. Reimbursement can be denied when national authorities find there may be an issue of therapeutic evidence or cost-effectiveness. In the Netherlands, there is no such list. New technology is covered by mandatory health insurance if it meets the criteria of 'current scientific knowledge and practice' (Dutch: 'stand van wetenschap en praktijk').

The listed treatments B as well as the additional out-of-pocket payments may differ among hospitals. Only patients who are able and willing to pay the additional out-of-pocket payments have access to treatment B. People can buy voluntary additional insurance that covers these additional out-of-pocket expenses.

In the Netherlands the situation is totally different. Dutch hospitals do not have such lists and the general perception is that additional payments for new health technology are legally forbidden. So at first glance the Belgian health care system could be characterised as a two-tier system and the Dutch health care system as an egalitarian system.

This observation raises several questions. First, are these new health technologies in the Netherlands available for all, for nobody, or only for selected groups of patients? In the latter case: for which groups, and are the selection criteria explicit and transparent? Second, how can the observed differences between Belgium and the Netherlands be explained? Third, what are the consequences for the patient?

The goal of this paper is to answer the above mentioned questions. According to the phrase 'You best understand and appreciate your own health care system by analysing other health care systems' the answers to the above questions and the discussion can provide valuable insights for health policymakers in other countries.

4.2 REGULATORY FRAMEWORK IN BELGIUM AND THE NETHERLANDS

We are using a broad definition of health technology, including implants, prostheses, in vitro diagnostics and drugs as well as equipment. Table 2 provides health technology examples that in 2015 were not covered by mandatory basic health insurance in Belgium.

Table 2. Health technology examples: situation in Belgium and the Netherlands (2015) (same examples as table 1)

Technology	Belgium	The Netherlands
Robot-assisted cardiac surgery A form of heart surgery performed through very small incisions in the chest. With the use of tiny instruments and robotic devices, surgeons are able to perform several types of heart surgery in a way that is much less invasive than other types of heart surgery. The procedure is sometimes called da Vinci surgery because that is the name of the robot often used for this procedure.	Not covered by mandatory basic health insurance. The cost is to be borne by the patient.	Covered by mandatory basic health insurance. Physicians, hospitals and insurers choose whether, where and when robot-assisted cardiac surgery can be used.
Trabecular metal acetabular revision system (TMARS) Hip revision surgery involves the removal of failed implants, and replaces them with new ones. The use of trabecular metal increases implant stability and enables biologic in-growth, which can help lead to long-term fixation.	Not covered by mandatory basic health insurance till 2014. The cost was to be borne by the patient. As from 2014, TMARS is covered by mandatory basic health insurance.	Covered by mandatory basic health insurance. Physicians, hospitals and insurers choose whether, where and when TMARS can be used.
Cervical intervertebral disc prosthesis (e.g. MOBI-C, Bryan Cervical Disc) An alternative for cervical spinal fusion for the treatment of symptomatic (e.g. radicular neck and/or arm pain and/or functional/neurological deficit) cervical degenerative disc disease or herniated disc. The cervical intervertebral disc prosthesis is authorised by the American Food and Drug Administration (FDA) [9], acknowledged by health technology assessment centers (e.g. National Institute for Clinical Excellence [10]) and is being covered by leading American health insurers (e.g. Blue Cross / Blue Shield [11]).	Not covered by mandatory basic health insurance. The cost is to be borne by the patient.	Not covered by mandatory basic health insurance. The prosthesis does not meet the criteria of 'current scientific knowledge and practice' in the Netherlands [12]. The prosthesis cannot be separately billed to the patient.
Microprocessor-controlled prosthetic leg (e.g. C-Leg, Genium) A prosthetic limb with several sensors that gather and calculate data. These computerised prostheses are claimed to be a significant improvement over the conventional mechanically controlled prostheses.	Not covered by mandatory basic health insurance. The cost is to be borne by the patient.	This prosthesis is rarely covered by mandatory basic health insurance, only when the mechanical alternatives do not provide an adequate solution.
MammaPrint A gene assay that may help to identify those breast cancer patients that may safely forgo chemotherapy.	Not covered by mandatory basic health insurance. The cost is to be borne by the patient.	Although the National Health Care Institute ('Zorginstituut Nederland') has stated that the MammaPrint does not meet the criteria of 'current scientific knowledge and practice' [13], many Dutch health insurers do provide coverage.

Table 2. Health technology examples: situation in Belgium and the Netherlands (2015) (same examples as table 1) (continued)

Technology	Belgium	The Netherlands
Non-invasive prenatal genetic testing (NIPT) A serum marker screening for certain chromosomal abnormalities in a developing foetus (e.g. Down syndrome).	Not covered by mandatory basic health insurance. The cost is to be borne by the patient.	Not covered by mandatory basic health insurance. NIPT is available only in 8 university hospitals in the context of study protocols Trident 1 and 2. As from 1 April 2014 until 31 March 2017 there was only access for pregnant women presenting a high risk for a trisomy baby (Trident 1) [14]. As from 1 April 2017 all pregnant women will have access to NIPT in the context of the Trident 2 study [15].
Ofatumumab (Arzerra) An orphan medicine used to treat chronic lymphocytic leukaemia.	Not covered by mandatory basic health insurance. The cost is to be borne by the patient.	Covered by mandatory basic health insurance.
Nivolumab (Opdivo) A cancer medicine used to treat adults with melanoma or squamous non-small cell lung cancer.	Not covered by mandatory basic health insurance in 2015 In principle, the cost is to be borne by the patient. However, a 'compassionate use' / 'medical need' program was running for Nivolumab in 2015. As from April 1, 2016 Nivolumab is covered by mandatory basic health insurance.	Not covered by mandatory basic health insurance in 2015. The Dutch Health Authority has stated that the use of Nivolumab was not cost-effective [16]. As from March 1, 2016 Nivolumab is covered by mandatory basic health insurance because, after negotiations, the price has been reduced [17].

4.2.1. Belgium

Health insurance in Belgium operates as a reimbursement system. All goods and services that are covered by mandatory basic health insurance have a six digit code. In case of a life-threatening or rare disease, an intervention from a 'Special Solidarity Fund' ('Bijzonder solidariteitsfonds', a public fund) can be asked for products that are not (yet) covered by basic health insurance [18]. This fund decides on a case per case basis about reimbursement for individual patients.

Implants need to be notified to the National Institute for Health and Disability Insurance ('Rijksinstituut voor ziekte- en invaliditeitsverzekering'). However, notification does not

automatically imply reimbursement by basic health insurance (with reimbursement rates varying between 100% and 12%). In case costs of the application procedure exceed foreseeable profits, medical firms may not apply for reimbursement, e.g. in case of new technology that will be only rarely used. For notified implants that are not covered by basic health insurance the full cost has to be borne by the patient.

The template of the hospital bill is defined by law. Drugs, implants, prostheses and other medical devices that are not covered by mandatory basic health insurance have to be explicitly mentioned on the bill. Some hospitals provide extensive lists of non-covered goods and services that need to be paid for out-of-pocket [1,2].

In every hospital there is a 'Committee for Medical Material' ('Comité voor medisch materiaal'), where management, pharmacists and physicians sit together to discuss what medical material can be used within the hospital. The committee for medical material creates and updates a formulary of medical material being used in the hospital. Health technology and health economics assessments are being made. The most important criteria are patient safety, added value (compared to similar products) and cost. There are three options: reimbursement by mandatory basic health insurance (or by the 'Special Solidarity Fund'), financing by the hospital (e.g. a special fund created by the hospital) or billing to the patient.

Non-coverage is common for health technologies for which there is no (complete) unanimity (yet) about the evidence. E.g. although cervical intervertebral disc prostheses are approved by the American FDA, there is no unanimity about the use of these prostheses. In Belgium, lumbar intervertebral disc prostheses are reimbursed by basic health insurance whereas cervical prostheses are not. American health insurance companies such as Aetna and Blue Cross / Blue Shield do reimburse cervical prostheses but not lumbar prostheses.

82% of all Belgians benefit from voluntary additional hospital insurance (figure for 2015) [19,20]. This additional insurance is covering co-payments, supplementary physician's fees, and health technology that is not (yet) reimbursed by basic health insurance. The coverage for health technology constitutes an important element for competition between insurance companies providing additional health insurance. Coverage for new medical devices and drugs differs strongly from company to company.

According to the Belgian Patient Rights Act health care providers are obliged to inform their patients about the different treatment options and the cost for the patient [21]. However, physicians may be reluctant to do so (and thereby raise hope) if they expect

that the patient eventually might not be able to pay out-of-pocket for the new implant or the new drug [22].

4.2.2. The Netherlands

In the Netherlands, there is a mandatory basic health insurance. On top of this mandatory insurance, 84% of the Dutch have subscribed to voluntary additional health insurance (figure for 2015) [23].

When assessing out-of-pocket payments for new health technology in the Dutch health care system, three elements need to be taken into consideration.

(1) How are entitlements to care defined within mandatory health insurance? In Belgium, there is a clear list of medical goods and services that are covered by mandatory insurance. Entitlements to care are explicitly formulated. As a consequence, it also clear which care is not covered (= care which is not on the list). In the Dutch regulation there is a non-explicit, open formulation of the entitlement to care. Dutch law stipulates that the insured is entitled to care which is in conformity with the criteria of 'current scientific knowledge and practice' (Dutch: 'stand van wetenschap en praktijk'). It is the individual insurer that in first instance decides, by contracting with individual hospitals, which specific treatments are effectively available for their insured. The National Health Care Institute ('Zorginstituut Nederland') checks some new technologies for their conformity with the criteria of 'current scientific knowledge and practice', e.g. very expensive technologies. In theory, all care which is in conformity with the criteria of 'current scientific knowledge and practice' is reimbursable. However, in practice the possibilities for the application and the reimbursement of new technology are not unlimited and choices are being made by insurers and providers. These choices are being reflected in the contracts between insurers and hospitals. Budgetary considerations play a role in the choices made (2015 May 7 email from J Hallie, Zorginstituut Nederland; unreferenced). Consequently, specific goods and services that are covered by mandatory health insurance, may appear not to be available in clinical practice, as a consequence of specific budgettary restraints or other elements in the contract between the insurer and the hospital.

(2) According to article 35, §1 of the Health Care Market Regulation Act ('Wet Marktordening Gezondheidszorg') health care providers are allowed to charge only a global price for a 'Diagnosis Treatment Combination' ('DTC'). A DTC comprises all inpatient and outpatient treatments for a certain diagnosis during a certain period of time, e.g. three months (in Dutch: 'Diagnose Behandel Combinatie', 'DBC'). A consequence of this

'integral tariff system' is that all costs of the treatment trajectory have to be included in the tariff.

(3) The distinction between a benefits-in-kind policy ('naturapolis') and a reimbursement policy ('restitutiepolis') is important. Unlike Belgium where there are only reimbursement policies, Dutch insured can choose between a benefits-in-kind policy and a reimbursement policy. In the Netherlands in 2015, 55% of the insured had a benefits-in-kind policy, 23% a reimbursement policy and 22% a combined policy (benefits-in-kind for some types of care and reimbursement for other types of care) [24].

With a benefits-in-kind policy, the patient gets the treatment that has been bought by the insurer from the contracted provider. Whether this treatment includes new health technology depends on which treatment has been bought by the insurer. A benefits-in-kind policy entitles the insured to receive care and obliges the insurer to deliver or contract the care ('duty of care'; in Dutch: *zorgplicht*). If the insured visits contracted providers, the insurer pays the full bill to the provider. If the insured visits a non-contracted provider, the insured receives from the insurer a reimbursement as determined in the insurance contract (e.g., 75% of the usual price in the market). Anyway, because of the integral tariff system no supplement can be charged by the provider to the patient for the use of new health technology. The insurer and the hospital have the contractual freedom not to include expensive new health technologies although they meet the criteria of 'current scientific knowledge and practice' (2015 June 17 email from K Siemeling, Zorginstituut Nederland; unreferenced; 2015 June 18 email from JP Plass, Nederlandse Vereniging van Ziekenhuizen; unreferenced). They could choose for a cheaper or more cost-effective substitute that also meets the criteria of 'current scientific knowledge and practice'. For example, an insured patient who needs prostate surgery is entitled to receive this surgery, but whether or not it is robot-assisted surgery depends on the care that the insurer has purchased from the hospital to which the patient is admitted. Because of his duty-of-care (in Dutch: 'zorgplicht') an insurer must always make sure that his insured are receiving the appropriate care that they are entitled to and that meets the criteria of 'current scientific knowledge and practice'. An important question then is in how far there is transparency for the insured about the use of new health technology?

A reimbursement policy entitles the insured to being reimbursed for his health care expenses, insofar as the prices charged are market conform. The patient, as the purchaser of care, is concluding a contract with the health care provider. In principle, the provider could bill the full price to the patient, including a 'supplement' for new health technology (as part of the integral tariff), and the health insurer could limit reimbursement to the market-conform price, which might be lower than the price charged by the provider. In

order to find out whether this possibility is effectively being applied, we have contacted the association of hospitals ('Nederlandse Vereniging van Ziekenhuizen'), the association of medical specialists ('Federatie Medisch Specialisten'), the association of health insurers ('Zorgverzekeraars Nederland') as well as the National Health Care Institute ('Zorginstituut Nederland'). Based on their answers there is no doubt that the general perception is that in Dutch hospitals in practice no such 'supplements' on top of the regular 'DTC-price' are being charged (2015 July 7 email from ACM Van Harderwijk, Federatie Medisch Specialisten; unreferenced; 2015 June 18 email from JP Plass, Nederlandse Vereniging van Ziekenhuizen; unreferenced; 2015 June 4 and 8 emails from J Veerkamp, Zorgverzekeraars Nederland; unreferenced; 2015 June 17 email from K Siemeling, Zorginstituut Nederland; unreferenced).

In the Netherlands, a new treatment may be conditionally accepted, when its 'cost'-effectiveness still has to be proven. This new treatment is then being offered in a limited number of hospitals only. E.g. from April 1, 2015 until October 1, 2019, hyperthermic intraperitoneal chemotherapy (HIPEC) for the treatment of peritoneal carcinosis for patients with colorectal cancer is being provided in 7 hospitals [25]. After October 1, 2019, a decision will be taken whether or not HIPEC will be reimbursed by mandatory basic health insurance.

So far as prostheses are concerned in the Netherlands, reimbursement is limited to the cheapest adequate solution.

When basic health insurance does not (yet) reimburse, both in Belgium and the Netherlands, medical firms sometimes set up a compassionate use / medical need program, whereby medical firms finance the cost of new drugs or new medical material.

4.3. CONCLUSION

The Dutch health care system is very much an egalitarian system. Expenditure on general hospitals is almost completely covered by mandatory basic health insurance. Out-of-pocket expenditure represents only 0.4% of total expenditure on hospitals. The situation is very different in Belgium, where private expenditure on general hospitals amounts to 17.5% of total expenditure on hospitals. Additional health insurance is covering 8.5% of total expenditure on hospitals [26]. In 2015, 9.2 million Belgians benefited from voluntary additional health insurance (82% of the population) [19,20].

While in the Netherlands it is theoretically possible to charge a supplement for new health technology to patients who have a reimbursement policy, the general perception is that this is not happening in practice. Although the Dutch government is promoting competition on price and quality among health insurers and health insurance policies and although legislation allows them to do so, health insurers are not offering two benefits-in-kind policies A and B whereby for policy A treatment A has been contracted and for –the more expensive– policy B treatment B, using new health technology, has been contracted.

Recently, concerns have been raised in the press about Dutch hospitals not always or not immediately providing the patient –for financial reasons– with the best treatment available. E.g. bevacizumab (Avastin) might not be given to all patients with colon carcinoma because some hospitals prefer not to pay for this expensive treatment [27].

Contrary to the Netherlands, Belgium has a two-tiered system so far as access to new health technology is concerned. Access to new health technology depends on the patient being informed about the new technology and the ability and willingness to pay out-of-pocket. Covering new health technology that is not (yet) reimbursed by basic health insurance is one of the reasons for the existence of additional health insurance in Belgium.

4.3.1. Access to new health technology in the Netherlands

Certain treatments are covered for nobody by mandatory health insurance in the Netherlands, e.g. cervical intervertebral disc prosthesis (see table 2). These treatments may also not be charged to the patient. As a consequence, they are not accessible for Dutch patients. Other treatments are covered but under strict conditions, e.g. non-invasive prenatal testing (see table 2). Patients who do not meet the conditions may be tempted to look for these treatments abroad. Often, new technologies are covered by mandatory health insurance in the Netherlands that are not covered in Belgium (see table 2). However, it is not always clear for the Dutch patient which insurers and which hospitals do offer a specific new health technology. In principle, the patient can check the website of the insurer or enquire with the insurer by telephone. Insurers are obliged to give a detailed answer to such questions. However, in practice this possibility is not often used.

4.3.2. Explanation of observed differences

The regulatory framework is an important explanatory factor for the differences between Belgium and the Netherlands. In Belgium, there is a closed, enumerative list of medical goods and services covered by mandatory health insurance. As a consequence, there is transparency about which treatments are not being covered. In the Netherlands, there

is no such list. Dutch law stipulates that care that meets the criteria of 'current scientific knowledge and practice' is to be covered by mandatory health insurance. However, unless the National Health Care Institute has assessed a certain treatment, insurers and hospitals do not necessarily all have the same approach towards that treatment (2015 May 22 email from J Hallie, Zorginstituut Nederland; unreferenced). This may cause a less transparent situation for the patient in the Netherlands.

The existance of in-kind health insurance policies in the Netherlands, as opposed to Belgium, may also help explain differences in access to new health technology. With in-kind policies, patients' choice is limited to the care contracted by the health insurer.

4.3.3. Consequences for the patient

Allowing out-of-pocket payments (or coverage by additional health insurance) for new health technology of course has consequences for the patient (see table 3). Whereas the Belgian approach may do better in terms of 'access to new health technology' for those who are able and willing to pay, the Dutch approach has a better score for 'equal access to care'. In Belgium patients have more choice, if they can pay. Of course, condition is that they are informed about the existence of other treatment options. Based on the Patient Rights Act of 2002, their doctor should inform them about all treatment options, including those that are not covered by mandatory basic health insurance. More research is needed on the question to what extent doctors effectively perform this task. For instance, doctors might be inclined to only inform well-off patients who can afford to pay out-of-pocket for an expensive new health technology.

Within the Dutch health system there is less transparency on the availability of new health technology. Out-of-pocket payments for new health technology do not exist in the Netherlands. The comprehensiveness of the statutory benefits package may be part of the explanation. However, since it is impossible for the benefits package to cover all new health technologies, Dutch patients may not have access to certain new technologies. It is quite likely that some patients may go abroad in order to get access to these technologies by paying out-of-pocket.

Yearly, about 2500 Dutch patients who do not meet the conditions for reimbursement of the non-invasive prenatal test (NIPT), have the test performed in Belgium [28]. In its letter of 13 January 2015 to the Dutch parliament, the Dutch government stated that no official data are available about physicians in the Netherlands referring pregnant women to hospitals in Belgium or sending blood samples to laboratories abroad for a NIPT. The government stated that in the Netherlands the NIPT can only legally be performed in

the context of a study protocol and that physicians who collaborate with laboratories abroad might be breaking the law [28].

Another element of the Dutch health care system may also negatively affect transparency. Since health insurers and hospitals are free to contract, including on the use of new health technologies, the patient may not know about new technologies being used in one hospital but not in the other.

Table 3. Effects of allowing out-of-pocket payments for new health technology

Criteria	Effect
Access to new health technology for those who are able and willing to pay	positive
Equal access to care	negative
Choice	positive
Transparency	positive

There seems to be a trade-off between equal access to care on the one hand and choice and transparency on the other hand. In a two-tier health care system, there is no equal access to new health technology. In an egalitarian system transparency on where and what technology is being used, as well as choice are limited.

82% of the Belgian population and 84% of the Dutch population has subscribed to additional health insurance (figures for 2015) [19,20,23]. While Belgian additional insurance is mainly offering coverage for inpatient costs, Dutch additional insurance focuses on outpatient costs such as dental care and physiotherapy. As opposed to Belgium, additional health insurance in the Netherlands does not offer coverage for new health technology which is not (yet) covered by basic insurance. In Belgium, the role of additional insurance in covering new health technology is recognised by the government. The Belgian 'Special Solidarity Fund', which is an integral part of mandatory basic health insurance, explicitly stipulates that patients first have to seek reimbursement for a new technique from their voluntary additional health insurance before they can file a request with the Fund [29].

4.4. DISCUSSION

Comparing access to new health technology in Belgium and in the Netherlands, two neighbouring countries, leads to some interesting discussion points. What are the consequences of a more egalitarian versus a more libertarian approach? What are the consequences for the patient of open non-explicit versus closed explicit description

of entitlements? What is the role of voluntary additional health insurance in providing access to new health technology? And what are the health policy implications for other countries?

4.4.1. Egalitarianism versus libertarianism

In 2008, a review commissioned by the British government was published by Richards on how patients might combine privately purchased care with care provided by the National Health System [30]. Richards [30] sees a tension between the principle of equity and the principle of personal autonomy. The term 'equity' is used in a broad sense to mean that every person should have access to health care on the basis of need and not ability to pay [31]. The term 'autonomy' is used to denote a very specific principle, namely people's right to spend their money as they choose. One could argue that a health care system could meet both the equity and the autonomy principle by offering a comprehensive basic health insurance on the one hand and the individual right to buy health technology that is not (yet) covered by basic health insurance on the other hand. The tension between equity and autonomy is being reflected by two opposite views on the provision of health care: the libertarian and the egalitarian view [32]. In the libertarian view, access to health care is part of society's reward system, and, at the margin at least, people should be able to use their income and wealth to get more or better health care than their fellow citizens should they so wish. In the egalitarian view, access to health care is every citizen's right (like access to the ballot box or to safe drinking water), and this ought not to be influenced by income or wealth.

Although the Dutch decentralised system with competing insurers allows for, in theory, the insurers to offer health insurance products that compete on price and quality, we concluded in the previous paragraph that in practice we do not observe competing health insurance products that distinguish themselves by offering access to the latest new (expensive) health technology. Although there are some differences among the competing health insurance products offered in the Netherlands, these differences are not related to new (expensive) health technology. Therefore, as far as access to new health technology is concerned, the Netherlands in practice seem to favour a more egalitarian approach, while the Belgian approach may be perceived as more libertarian.

4.4.2. Open non-explicit versus closed explicit description of entitlements

In many countries, there is a strong tendency towards greater transparency about the quality of care. With a clear, closed list entitlements to care tend to be transparent and explicit, as opposed to a system with an open, non-explicit description of entitlements. Implicit and non-transparent entitlements can be illustrated by Kaiser Permanente generally defining 'a covered service' as 'one performed or prescribed by a Permanente

doctor' [33]. But what are the consequences of greater transparency on new health technology for an egalitarian health care system? A greater transparency might reveal the existence of inequalities in access to new health technology, e.g. new technology not being covered by basic insurance or only for certain groups. Of course, such inequalities are at odds with the premises of an egalitarian system.

4.4.3. Voluntary additional health insurance

Voluntary additional health insurance can offer coverage for health technology that is not (yet) covered by mandatory health insurance.

Coverage by additional health insurance can be limited with only certain types of health technology being covered or caps being applied but coverage can also be more extensive. Coverage of new health technology can be a major competitive factor among additional health insurers. This is for instance the case in Belgium. This competition among additional health insurers is in line with Pauly's pleading for competition among health plans based on the rate at which new technology is introduced [34]. In a highly standardisd market for health insurance, any additional treatment or drug covered by an insurance contract may be a decisive factor encouraging patients to sign it with the insurer offering the widest or most differentiated coverage [35].

Access to new health technology may also be influenced by the interaction between mandatory basic insurance and voluntary additional insurance. Mandatory health insurance can decide not to cover a certain medical technique and to wait for new evidence or for prices to decrease. In the meantime, the technique can be financed out-of-pocket or through additional insurance. Out-of-pocket financing and additional insurance can play the role of a 'waiting room' for promising new health technologies, before they are being covered by mandatory insurance. Of course, this will only work for technology for which there is sufficient (and growing) evidence. E.g. as from 2011 the TMARS hip prosthesis (see tables 1 and 2) has been covered by additional health insurance in Belgium before being covered by mandatory health insurance as from 2014. Mandatory health insurance taking over coverage from additional insurance, can free up financial resources with additional insurers allowing them to finance other new technologies. Since access to voluntary health insurance may be difficult for 'the sick, the old and the poor', the 'waiting room' function of additional insurance should be limited and mandatory health insurance should be offering a comprehensive coverage of new health technology.

4.4.4. Policy implications for other countries

Accessibility of new health technology which is not (yet) reimbursed by mandatory basic health insurance is an important health policy issue. The reason a new health

technology is not covered by mandatory insurance can be the lack of unanimity on its evidence-based character. A technology may be successfully assessed and reimbursed in one country, but not in another one.

Prohibiting access to new health technology which is not (yet) covered by mandatory insurance may prove to be difficult to enforce. Rather, in order to protect citizens from paying out-of-pocket for totally ineffective technology, information can be provided on the reasons why some new health technology has not been included in the mandatory benefits package. Mandatory registration of all new health technology can be used to prevent unsafe health technology from being marketed and used.

The availability of clear information on new health technology that is not (yet) reimbursed by mandatory basic health insurance is a crucial factor. In a globalizing world, such information is likely to be increasingly available, at least for people that are well networked.

An analysis of the Belgian and the Dutch approach reveals that a closed explicit system of entitlements to care may create an environment in which patients (and their doctors) are encouraged to look for and to use new health technologies which are not (yet) reimbursed by mandatory insurance. Reimbursement by additional health insurance can also facilitate the use of new health technologies, e.g. by providing reimbursement for technologies that are not yet reimbursed by mandatory basic health insurance but that are under review for reimbursement (= 'waiting room function'). Risk-averse individuals may want to protect both their health and their wealth by assuring access to expensive health technology not (yet) covered by mandatory basic health insurance. In all types of health systems there is an increasingly concerted effort to specify explicitly an 'essential' package of health care that is covered by mandatory health insurance [36]. Because of increasing offer and demand of health technology and growing budgetary constraints, the comprehensiveness of the mandatory package of care is coming under strain. Smith [37] has investigated the question how to choose the mandatory package to which all citizens are given free access when objectives include financial protection as well as health improvement. A key concern is the type of private markets available and the nature of patients' responses when a treatment is not covered by such a package. Smith [37] has modelled three scenarios: no availability of private care, a spot market of private care paid for out-of-pocket and a market in prepaid complementary private insurance. His conclusion is that governments can secure an optimal system of mandatory health insurance coverage by specifying a benefits package in line with redistributional goals and nurturing a complementary voluntary insurance market [37]. He argues that under these circumstances, conventional cost-effectiveness analysis is the appropriate deci-

sion rule for including treatments in the package. Certainly, more research is needed on the interaction between cost-effectiveness analysis and insurance design [38].

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5. Regulation of PHI markets

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ABSTRACT

Recent European Court of Justice (ECJ) case law has highlighted apparent inconsistencies in ECJ rulings on the regulation of voluntary additional health insurance. In 2013, the ECJ upheld Belgian regulations limiting the operation of the free market by restricting increases in premium rates of additional health insurance contracts. By contrast, in 2012, an ECJ ruling required Slovenia to repeal such restrictive legislation and not to hinder the operation of the free market. The objective of this paper is to feed the discussion on the question whether and under what conditions free-market-driven additional health insurance in the European Union might be acceptable. We conclude that, provided that basic health insurance effectively covers all essential health care (essential health care services being broadly defined), additional health insurance could be regulated in the same way as all other non-life insurance.

5.1. INTRODUCTION

In the European Union (EU), voluntary additional health insurance is, in principle, subject to free market rules and competition. As an exception, governments may impose rules restricting free competition when private health insurance serves as a partial or complete alternative to health cover provided by the statutory social security system ('substitutive health insurance'). In this paper, we will focus on 'voluntary additional health insurance', which we define as 'all voluntary individual (not: group) additional private health insurance other than substitutive health insurance' (e.g., complementary or supplementary health insurance).

In 2013, the European Court of Justice (ECJ) ruled that the European insurance directives do not preclude the Belgian government from adopting regulations limiting competition in the additional health insurance market in order to protect consumers against sharp and unexpected increases in premium rates.[123] The ECJ did not concur with the opinion of the European Commission, which considered that the Belgian legislation at issue was contrary to the principle of freedom to set rates. As will be discussed below, this judgment differs from a 2012 ruling where the ECJ required Slovenia to repeal its restrictive legislation on increases in premium rates.[124]

In this article, we will analyse the impact of these two ECJ rulings on the application of free-market principles on voluntary additional health insurance markets in the EU. We will discuss the arguments made in favour and against restrictive price regulation. In addition to an analysis of the Belgian and Slovenian cases, we will also refer to the concept of services of general economic interest and to the ECJ ruling in the *BUPA* case[125] (Ireland). Starting from the Belgian and Slovenian ECJ cases on price regulation in the additional health insurance market, we will broaden the discussion to the question of the extent to which free market rules effectively apply to additional health insurance in the EU. The objective of this paper is to feed the discussion on the question whether and under what conditions free-market-driven additional health insurance in the EU might be acceptable.

123 Case C-577/11, *DKV Belgium SA* v. *Association belge des consommateurs Test-Achats ASBL* ECLI:EU:C:2013:146.
124 Case C-185/11, *Commission* v. *Slovenia* ECLI:EU:C:2012:43.
125 Case T-289/03, *BUPA and others* v. *Commission* [2008] ECR II-81.

5.2. ADDITIONAL PRIVATE HEALTH INSURANCE AND EU REGULATION

In addition to the general treaty provisions on freedom of establishment (Article 49 of the Treaty on the Functioning of the European Union('TFEU')[126]) and freedom to provide services (Article 56 TFEU), the EU has adopted specific non-life insurance directives with the aim of increasing competition in the European insurance market.[127] Recital 19 of the Third Non-Life Insurance Directive[128] states that 'within the framework of an internal market it is in the policyholder's interest that he should have access to the widest possible range of insurance products available in the Community so that he can choose that which is best suited to his needs'.

When it comes to insurers' freedom to set premium rates, Article 8(3) of the First Non-Life Insurance Directive[129] and Articles 29 and 39(2) and (3) of the Third Non-Life Insurance Directive provide: '[…] Member States may not retain or introduce prior notification or approval of proposed increases in premium rates except as part of general price-control systems.'

Article 54 of the Third Non-Life Insurance Directive provides an exception to this rule. A Member State's supervisory authority may impose specific measures in the form of restrictions on insurance contracts in the interest of the 'general good', where contracts covering health risks 'may serve as a partial or complete alternative to health cover provided by the statutory social security system'. Where this is the case, a Member State can require private insurers to 'comply with the specific legal provisions adopted by that Member State to protect the general good in that class of insurance'.[130] A number of legal provisions may be introduced if private cover provides a partial or complete alternative to statutory cover: open enrolment, community rating, lifetime cover, policies standardised in line with the cover provided by the statutory health insurance scheme at a premium rate at or below a prescribed maximum, participation in risk equalisation schemes (referred to as 'loss compensation schemes') and the operation of private health

126 Consolidated version of the Treaty on the Functioning of the European Union, *OJ* C 202, 7 June 2016, pp. 47-200.

127 For an analysis of the relevant EU legal framework, see F. Paolucci, A. Den Exter and W.P.M.M. van de Ven, 'Solidarity in competitive health insurance markets: analysing the relevant EC legal framework', *Health Economics, Policy and Law* 1(2) (2006) 107-126.

128 Council Directive 92/49/EEC of 18 June 1992 on the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance and amending Directives 73/239/EEC and 88/357/EEC, *OJ* L 228, 11 August 1992, pp. 1-23 ('Third Non-Life Insurance Directive').

129 Council Directive 73/239/EEC of 24 July 1973 on the coordination of laws, regulations and administrative provisions relating to the taking-up and pursuit of the business of direct insurance other than life assurance, *OJ* L 228, 16 August 1973, pp. 3-19 (First Non-Life Insurance Directive).

130 Article 54(1) and Recital 24 of the Third Non-Life Insurance Directive.

insurance on a technical basis similar to life insurance.[131] Measures taken to protect the general good must be shown to be necessary and proportional to this aim; not unduly restrict the right of establishment or the freedom to provide services; and apply in an identical manner to all insurers operating within a member state.

In his letter of 25 November 2008, European Commissioner Bolkestein, responding to a question from the Dutch government on the application of EU regulation to private health insurance, suggested that the Article 54 exception only applies to substitutive health insurance: 'I do not think that it would be proportionate to apply the requirements to any complementary insurance cover offered by private insurers which goes beyond the basic social security package of cover laid down by the legislation'.[132] Thomson and Mossialos (2010) disagree with the assumption that only substitutive private health insurance provides social protection. They argue that where the statutory benefits package is relatively narrow and/or subject to extensive co-payments, it could be considered that individuals do not have adequate protection from the financial risk associated with ill health unless they purchase additional health insurance covering excluded (and effective) services and/or statutory user charges.[133] However, the credibility of this argument depends on the extent to which low-income groups and high-risk groups (e.g., the elderly and chronically ill) effectively have access to such additional cover. Regulation of voluntary additional health insurance that is not affordable for these groups cannot be considered to effectively protect the general good.

Under certain conditions, national governments can restrict the application of free market principles to private health insurance. A restriction on free competition may be justified where it serves overriding requirements relating to the public interest, is suitable for securing the attainment of the objective which it pursues and does not go beyond what is necessary in order to attain it.[134]

131 *Ibid.* Article 54(2) and Recital 24.

132 F. Bolkestein, 'Letter from the European Commission to the Dutch Minister of Health, Welfare and Sport', European Commission, 25 November 2003.

133 S. Thomson and E. Mossialos, 'Private health insurance and the internal market', in: E. Mossialos, G. Permanand, R. Baeten and T. Hervey (eds.), *Health Systems Governance in Europe: the Role of EU Law and Policy* (Cambridge: Cambridge University Press, 2010) pp. 419-460.

134 Case C-518/06, *Commission* v. *Italy* [2009] ECR I-3491, para.72.

5.3. EU CASE LAW ON PRICE REGULATION OF ADDITIONAL HEALTH INSURANCE

In recent years, the ECJ has taken different views in two cases (*Commission* v. *Slovenia* (2012) and *DKV Belgium SA* v. *Association belge des consommateurs Test-Achats ASBL* (2013))[135] on the question whether government intervention in setting the prices of additional health insurance contracts is consistent with EU regulation. On the one hand, in its ruling of 26 January 2012 in *Commission* v. *Slovenia*, the Court concluded that Slovenia's rules on complementary health insurance did not comply with the EU non-life insurance Directives. The Court found that a number of provisions in the Slovenian Health Care and Health Insurance Act ('*Zakon o zdravstvenem varstvu in zdravstvenem zavarovanju*' ('ZZVZZ')) did not comply with some of the basic freedoms outlined in the EU's non-life insurance Directives. By contrast, by its ruling of 7 March 2013 in *DKV Belgium SA*, the Court upheld the system of restrictive price regulation of existing private health insurance contracts in Belgium. The Court accepted a requirement of prior notification and approval of proposed increases in premium rates in the Belgian context but not in the Slovenian context.

These two cases, which each concern price regulation, illustrate the need for discussion on the appropriate balance between regulation and the operation of the free market in the additional health insurance sector more broadly. This important issue of health policy will be discussed in more depth in section 5. Before that, in section 4, we will bring into the discussion two legal elements that are relevant to consideration of the appropriate balance to be drawn, the concept of services of general economic interest and the proportionality of national regulation aiming at restricting free market.

5.3.1. Slovenia

5.3.1.1. Health insurance system

In 2015, health expenditure per capita in Slovenia –expressed in purchasing power parity– was less than the EU28 average but above the average for the ten countries that joined the EU in May 2004.[136] Private health expenditure, comprising voluntary additional health insurance and out-of-pocket expenditure, is close to 30 per cent of total health expenditure.[137] All Slovenians are covered by compulsory basic health insurance,

135 *Supra* notes 123 and 124.

136 OECD/EU, *Health at a glance: Europe 2016 – state of health in the EU cycle*, Paris, OECD Publishing, 2016. Retrieved 24 January 2017, http://dx.doi.org/10.1787/9789264265592-en.

137 In 2015, Slovenia's public spending as share of total health expenditure was 72.2 per cent. Private health expenditure amounted to 27.8 per cent of total health expenditure. Source: OECD Health Statistics 2016, figures for 2015. Retrieved 22 January 2017, http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT.

which is part of a Bismarckian system of social security. Voluntary additional health insurance is quite important in Slovenia, covering about half of private expenditure.[138] Voluntary additional health insurance was introduced in 1993 to cover co-payments for compulsory health insurance.[139] Co-payments apply for visits to general practitioners, specialists and hospitals as well as for pharmaceuticals and vary from 5 per cent to 75 per cent. Almost all Slovenians have taken out additional health insurance to cover co-payments.[140] Additional health insurance is provided by Vzajemna, a non-profit public insurance company, along with Adriatic-Slovenica, Triglav and Merkur, three for-profit insurance companies.[141] Vzajemna and Adriatic-Slovenica have been active since 1993. In the period 2004-2005, two new commercial companies –Triglav and Merkur– entered into the Slovene market. They launched an overt cream-skimming campaign aimed at younger and healthier insured individuals by offering risk-related premiums. In 2005, a risk-equalisation scheme was adopted. In order to prevent cream-skimming, additional health insurance companies were obliged to participate in the risk-equalisation scheme to level out differences among insurance companies in terms of the costs of health care. Insurance companies had to apply a unified flat premium for all insured people, irrespective of sex, age or health status.[142]

5.3.1.2. Commission v. Slovenia[143]

According to the Slovenian Health Care and Health Insurance Act (ZZVZZ), increases in premium rates of additional health insurance contracts had to be notified to and approved by the relevant national supervisory authority.[144] On 23 March 2007, the European Commission sent a letter of formal notice to Slovenia stating that certain articles of the ZZVZZ breached the non-life insurance Directives and Articles 56 and 63 TFEU.[145] Article 63 TFEU was invoked because the ZZVZZ obliged insurance companies to reinvest at least half of the profits from additional health insurance in the administration of this in-

138 14.8 per cent. Source: *ibid.*

139 Reimbursement of co-payments amounted to EUR 404 million in 2014, representing 85 per cent of total expenditure by additional health insurance (EUR 474 million). The remaining EUR 70 million was spent on care not reimbursed by Slovenian social security. Source: S. Thomas, S. Thomson and T. Evetovits, 'Making sense of complementary health insurance', final report, Slovenian Ministry of Public Health, 2015. Retrieved 26 January 2017, http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/Analiza/21012016/21012016Report_Making_sense_of_CHI_-_Slovenia.pdf.

140 Children under 18 years and students under 26 years are excluded from co-payments. Approximately 98 per cent of all individuals who are eligible to pay co-payments have taken out additional health insurance. Source: T. Albreht, E. Turk, M. Toth, J. Ceglar, S. Marn, R. Pribaković Brinovec, M. Schäfer, O. Avdeeva and van E. Ginneken, 'Slovenia: Health system review', *Health Systems in Transition* 11(3) (2009) 1-168.

141 *Ibid.*

142 *Ibid.*

143 *Supra* note 124.

144 Article 62, § 2, 6° ZZVZZ.

145 *Supra* note 124, paras. 10 and 12.

surance.[146] In response, Slovenia argued that, although additional health insurance was not compulsory, it was part of the Slovenian social security system since it represented a matter of public interest.[147] In defence of the existing regulation, Slovenia referred to Article 54 of the Third Non-Life Insurance Directive.[148] Later, in a letter of 26 August 2009, Slovenia proposed to remove the contested articles from the ZZVZZ. As Slovenia did not ultimately amend the ZZVZZ, the European Commission referred the case to the ECJ. On 26 January 2012, the ECJ ruled that certain requirements of the ZZVZZ were in breach of Article 8(3) of the First Non-Life Insurance Directive and Articles 29 and 39 of the Third Non-Life Insurance Directive, more particularly the requirement of prior notification and approval of proposed increases in premium rates, the requirement of prior agreement of the Minister of Public Health before setting up an additional health insurance business in Slovenia (including notification of all terms and conditions) and the requirement of prior notification and approval of proposed changes of terms and conditions.

The European Commission also argued that Article 62, §2, 4° ZZVZZ (requirement that half of the profit resulting from additional health insurance be invested in its administration) and Article 62f, §9 ZZVZZ (requirement that insurance companies from other Member States appoint a domiciliary agent in Slovenia) did not comply with Articles 56 and 63 TFEU. However, since the Commission's claim on these points was not correctly formulated, the Court dismissed it.

Subsequently, the Slovenian government adapted the ZZVZZ by removing the contested provisions. The amendments included repeal of Articles 62, §2, 4° and 62f, §9 ZZVZZ, even though the ECJ had not ruled on their compatibility with EU law.

5.3.2. Belgium

5.3.2.1. Health insurance system

Belgium has a system of compulsory health insurance with a very broad benefits package. Health insurance is part of a Bismarckian social security system. Compulsory health insurance is administered by seven sickness funds. Every citizen is obliged to be a member of a sickness fund.

In 2015, Belgium had the 8th highest health care expenditure per capita measured in purchasing power parity among the EU28 countries.[149] Private expenditure (i.e., out-of-

146 Article 62, § 2, 4° ZZVZZ.
147 *Supra* note 124, para. 11. For a discussion on the public interest argument see *infra* section 5.4.2.
148 *Ibid.* For further explanation of Article 54, see *supra* section 5.2.
149 *Supra* note 136.

pocket expenditure plus additional health insurance) represents more than 20 per cent of total health expenditure.[150]

Additional health insurance covers less than 5 per cent of total expenditure on health.[151] Half of this 5 per cent consists of services and benefits provided by the sickness funds to their members and for which the sickness funds request a membership fee. These services and benefits are very diverse, e.g., reimbursement of travel vaccines or reimbursement of the membership fees of sport clubs. In addition to these services and benefits, which are accessible for the entire population, about three-quarters of the population has taken out voluntary additional health insurance, known as 'hospitalisation insurance' ('*hospitalisatieverzekering*' (Dutch) / '*assurance hospitalisation*' (French)).[152] This hospitalisation insurance covers supplements and co-payments.[153] There are three types of supplements, which are not covered by compulsory health insurance: fee supplements, room supplements and material supplements.

A fee supplement is an extra fee charged by health care providers on top of the official tariff set by the social security regime ('*ereloonsupplement*' (Dutch) / '*supplément d'honoraires*' (French)).[154] In a hospital setting, fee supplements may only be charged to patients staying in a private, one-bed room. In 2015, one out of every four patients stayed in a private room.[155] In hospitals, fee supplements range between one and three times the official tariff, with significant variations between the supplements in different regions.[156] In a similar way to a fee supplement, a room supplement is charged by the hospital for the use of a private, one-bed room. When a stay in a private room is necessary because of medical reasons, room supplements may not be charged. A 'material' supplement is requested for medical material which is not (yet) reimbursed by social security, e.g., non-reimbursable pharmaceuticals or a new hip implant.[157] The costs linked to the

150 Public funding as share of total expenditure on health amounts to 77.6 per cent. Private expenditure represents 22.4 per cent of total health expenditure. Source: see *supra* note 137.

151 In 2014, voluntary additional health insurance represented 4.4 per cent of total health expenditure. Source: OECD Health Statistics 2016, see *supra* 137.

152 Other types of additional health insurance, such as dental insurance or insurance for outpatient costs, are taken out by less than 5 per cent of the Belgian population.

153 The term 'statutory user charges' can also be used instead of the term 'co-payments'. Statutory user charges represent on average 38 per cent of total patient bill. Source: Mutualité Chrétienne, '12e Baromètre MC de la facture hospitalière', 21 November 2016. Retrieved 24 January 2017, https://www.mc.be/actualite/communique-presse/2016/barometre_hospitalier_2016.jsp.

154 In Anglo-American contexts, the terms 'extra billing' or 'balance billing' are used.

155 In 2015, 23 per cent of all Belgian patients stayed in a private room for a regular hospitalisation (including at least one night). Source: see *supra* note 153.

156 Most Flemish hospitals charge 100 per cent of the official tariff, most Walloon hospitals 200 per cent and most Brussels hospitals 300 per cent.

157 On average, material supplements account for about 7 per cent of total patient bill. Source: see *supra* note 153.

use of a private hospital room –i.e., fee and room supplements– account for about half of total reimbursements made by hospitalisation insurance programmes.[158] Whereas the total patient bill has been decreasing over the past ten years, this is not the case for fee supplements which have been steadily increasing.[159]

In order to curb the –often high– premium rate increases under hospitalisation insurance contracts, a 'medical index' has been created by law. Premium rates can only be increased in line with the consumer prices index or the medical index.[160] Only when an additional health insurance product is (expected to be) loss-making may an insurer request the supervisory authority, the National Bank of Belgium, for permission to increase premiums.[161]

5.3.2.2. DKV Belgium SA v. Association belge des consommateurs Test-Achats ASBL

In 2010, the Belgian consumer organisation Test-Achats ASBL, and the Belgian professional association of insurance companies Assuralia, lodged an action for annulment of the aforementioned law of 17 June 2009 on private additional health insurance contracts. In a judgment of 31 May 2011, the Belgian Constitutional Court upheld the legal restrictions on increases in premium rates.[162] It stated that it was the goal of the legislator to protect consumers, particularly with a view to preventing them from being faced with sharp, unexpected increases in insurance premium rates.

In January 2010, DKV Belgium SA, a private insurance company offering additional health insurance products, increased insurance premium rates by 7.84 per cent, well before the publication of the official medical index later that year. On 22 February 2010, Test-Achats brought an action for an injunction before the President of the Commercial Court in Brussels seeking to have DKV ordered to reverse its decision to increase premiums. By judgment of 20 December 2010, the Court upheld Test-Achats' complaint. DKV appealed against that judgment before the Brussels Court of Appeal. The Brussels Court of Appeal requested a preliminary ruling from the ECJ on the compatibility with EU law of Belgium's

158 The exact figure is 49 per cent (2015). Source: see *supra* note 153.

159 After adjustment for inflation, supplementary fees have increased by 32 per cent between 2004 and 2015, whereas total hospital bill for the patient has decreased by 5 per cent. In 2015, supplementary fees represented 61 per cent of the average patient bill for a private hospital room. Source: see *supra* note 153.

160 A law introduced on 17 June 2009 restricted increases in premium rates for existing contracts to increases in the consumer price index or the medical index if and in so far as the evolution of the medical index exceeds that of the consumer price index (Article 204 Insurance Law). The medical index reflects the evolution of the patient bill. Because the medical index did not include a provision to revalorise the ageing reserves, the medical index was annulled by the administrative court on 29 December 2011. By royal decree of 16 March 2016, a new medical index has been created, including -on top of the claims evolution- a provision of maximum 2 per cent to cover the revalorisation of the ageing reserves.

161 Art. 204, §4 Insurance Law ('Loi du 4 avril 2014 relative aux assurances, *Moniteur belge,* 30 April 2014').

162 Arrêt de la Cour constitutionnel 90/2011 du 31 mai 2011, *Moniteur belge,* 10 August 2011.

legislation restricting premium rate increases of additional health insurance contracts.[163] The ECJ, in its judgment of 7 March 2013, held that 'the non-life insurance directives do not preclude the Belgian legislation restricting increases in premium rates'. The ECJ ruled that the Belgian rules do not constitute a breach of Articles 49 and 56 TFEU, 'provided that there are no less restrictive measures which might be used to achieve, under the same conditions, the objective of protecting consumers against sharp, unexpected increases in insurance premium rates, which is for the national court to ascertain'.[164]

Following the ECJ's ruling, DKV argued before the national court that an *ex post facto* review of rate increases constituted a less restrictive alternative, compared to a prior review (as the non-life insurance Directives specifically prohibit retaining or introducing prior notification or approval of proposed increases in premium rates). However, on 22 February 2016, the Brussels Court of Appeal ruled that an *ex post facto* review does not represent a less restrictive alternative but only a different 'modus operandi'.

In its ruling, the ECJ stressed the fact that a system of premium rate increases such as that at issue does not prohibit insurance undertakings from freely setting the basic premium and from taking account of the higher costs that the insurance coverage will entail for them when the insured party becomes older.[165] Previously, the Belgian Constitutional Court had also defended the contested regulation with the argument that the insurer can freely determine all elements of the contract –including the premium– at the moment the contract is concluded.[166]

5.4. UNCERTAINTY ABOUT THE APPLICATION OF EU LAW

The apparent inconsistency in the ECJ's recent case law has led to uncertainty as to the compatibility with EU law of restrictions on increases in premium rates. The question is to what extent free market rules effectively apply to additional health insurance in the EU. An important element in the discussion is how the appropriateness of the restrictive measures taken by Member States can be assessed. In this section, we will discuss a set of criteria developed by the European Commission to test the proportionality of national regulation of private additional health insurance. We will also discuss the concept of services of general economic interest (SGEIs). When an additional health insurance

163 *DKV Belgium SA* v. *Association belge des consommateurs Test-Achats ASBL*, see *supra* note 123, para. 17.
164 *Ibid.*, paras. 48 and 49.
165 *Ibid.*, para. 45.
166 *Supra* note 162, para. B.13.7.3.

scheme can be defined as an SGEI, the application of free market rules to that scheme can be restricted.

As discussed in section 3, while the ECJ held that Slovenian requirements of prior notification and approval of increases in premium rates of additional health insurance contracts were not compliant with the European non-life insurance Directives, the ECJ found the Belgian regime compliant.

In the Belgian case, the European Commission considered that the restrictions on increases in premium rates were contrary to the principle of freedom to set rates.[167] In its ruling, the ECJ agreed that such a regulatory regime for premium rate increases in one Member State was liable to dissuade insurance undertakings established in other Member States from opening a branch in that first Member State or to offer their services there. The Court reasoned that those undertakings would have to determine their premium positioning and, therefore, their commercial strategy when they first set their premiums, with the risk that future premium rate increases would be insufficient to cover the costs with which they will be faced. However, the Court recalled that a restriction on the freedom of establishment or the freedom to provide services may be justified where it serves overriding requirements relating to the public interest, is suitable for securing the attainment of the objective which it pursues and does not go beyond what is necessary in order to attain it.[168] In past cases, the ECJ has accepted the objective of consumer protection, which was advanced by the Belgian government to defend the contested regulations, as an 'overriding requirement relating to the public interest'.[169]

As for the suitability of the restrictive Belgian regulation for the attainment of the objective it pursues, the European Commission expressed serious doubts.[170] The Commission considered that it might prove difficult for the regulator to reject proposed increases in premium rates for loss-making additional health insurance products. If this were the case, premium increases would not be prevented and the consumer would not be protected against sharp, unforeseen increases in premium rates. In other words, the Commission had serious doubts about the effectiveness of the regulation.

167 Cf. *Commission* v. *Italy*, see *supra* note 134, para. 101.
168 Cf. *ibid.* para. 72.
169 Cf. Case 205/84, *Commission* v. *Germany* [1986] ECR 3755, paras. 32-33.
170 Commission Européenne, Observations écrites dans l'affaire C-577/11, Brussels, 28 February 2012 (JUR(2012)250478 CV/tm).

5.4.1. Proportionality of the contested regulation

In the DKV case, the European Commission proposed five criteria to assess the proportionality of national regulation relating to additional health insurance:[171] (1) the nature of the additional health insurance at issue (i.e., whether substitutive, duplicative, supplementary or complementary), with national measures being more proportionate in case of substitutive health insurance; (2) the expenditure by additional health insurance as a share of total national health expenditure, with national measures being more proportionate in case this share is increasing; (3) the objective of the public interest rationale invoked: granting access to additional health insurance irrespective of age and health status (and thus protecting the weakest in society) or protecting consumers who freely concluded their contract in a competitive market, with national measures being more proportionate in case the first objective is aimed at; (4) the existence of a competitive insurance market, which succeeds in creating a wider choice for the consumer and a decrease in premium rates, with national measures being more proportionate in case there is no really competitive insurance market; (5) the existence of other, less restrictive measures.

What would be the consequences of applying these five criteria to the Slovenian and the Belgian cases?

(1) *Nature of additional health insurance*: Both in Belgium and Slovenia, additional health insurance is not substitutive but complementary and supplementary. In Belgium, about half of total expenditure by additional health insurance is spent on providing access to a private hospital room. There are no studies available proving that the quality of care in a private room in a Belgian hospital is better than in a double or common room. In Slovenia, co-payments represent 85% of total reimbursement by additional health insurance. Therefore, as to this criterion, the Slovenian regulation may be considered more proportionate than the Belgian regulation.

(2) *Expenditure by additional health insurance as a share of total expenditure on health care*: While additional health insurance covers 14.8 per cent of total expenditure on health care in Slovenia, the figure reaches only 4.4 per cent in Belgium (2014). In fact, the share of total health expenditure covered by additional health insurance in Belgium has dropped from 5.1 per cent in 2003 to 4.4 per cent in 2014. Over the same period, in Slovenia, there has been an increase from 13.9 per cent to 14.8 per cent.[172] So far as this criterion is concerned, the Slovenian regulation may be considered more proportionate than the Belgian regulation.

171 *Ibid.*

172 *Supra* note 137.

(3) *Objective of public interest:* Due to the existence of community rating in Slovenia, protecting consumers against sharp, unexpected increases in insurance premium rates equally serves the objective of granting access to additional health insurance, irrespective of age and health status (by keeping premium rates affordable) and the objective of protecting consumers who freely conclude their contract in a competitive market. This is not the case for the Belgian market. In Belgium, insurers are completely free to set premium rates for new clients. New clients who suffer from a pre-existing condition may have to pay an extra premium. Once a contract is concluded, given their higher initial premium, high risk clients will be more impacted by subsequent premium increases (in absolute terms). New clients are not protected by the restrictive regulation on increases in premium rates since this regulation is limited to existing contracts. Since the Slovenian regulation also affects access to additional health insurance, it appears to be more proportionate than the Belgian regulation.

(4) *Existence of a competitive insurance market*: The Belgian health insurance market is more competitive than the Slovenian market. There is both a larger number of insurers and a bigger variety in premium levels in Belgium. In Slovenia there are only 4 insurers, whose premium levels are close to each other,[173] whereas in Belgium there are over 20 insurers.[174] For these reasons, the Slovenian regulation may be more proportionate than the Belgian regulation as far as this criterion is concerned.

(5) *Alternative measure possible*: In its reasoned opinion on the Belgian case, the European Commission put forward a number of alternative measures: better information for consumers underwriting additional health insurance; a framework for contested contractual clauses; an obligation to offer a standard contract with limited premiums to vulnerable groups (cf. the '*Basistarif*' offered by private basic health insurance in Germany); a limitation of the technical part of the premium (i.e., pure premium and security loadings) in combination with a more flexible framework for the commercial part of the premium (i.e., administrative and commercial costs); a risk equalisation system.[175] However, some of these supposedly less restrictive measures may well be more restrictive than linking premium increases to a price index (e.g., an obligation to offer a standard contract with limited premiums to vulnerable groups).

Given that additional health insurance expenditure as a share of total health care expenditure is much larger in Slovenia and the Slovenian additional health insurance market

173 *Supra* note 139 (source).

174 Five Belgian sickness funds offer voluntary additional health insurance products and so are more than 15 private insurance companies. Retrieved 25 January 2017, http://www.assuralia.be/images/docs/stats/NL/04_marktsamenstelling/04_11_top15-ziekte.htm.

175 *Supra* note 170.

is less competitive than the Belgian market, it is remarkable that the ECJ upheld the Belgian regulatory regime but found the Slovenian regime incompatible with EU law. Article 54 of the Third Non-Life Insurance Directive explicitly allows EU Member States to restrictively regulate private health insurance that serves as a partial or complete alternative to health cover provided by the statutory social security system. According to this criterion, since additional health care in Slovenia mainly covers co-payments (85%) and makes health care more accessible, the proportionality test rather points towards allowing restrictive regulation to be introduced in Slovenia.

Since the ECJ apparently accepted regulation of premium rate increases in Belgium but not in Slovenia, it is not clear whether this kind of regulation could be adopted by other EU Member States.

5.4.2. Can additional health insurance be considered as a service of general economic interest?

The qualification of an additional health insurance scheme as a service of general economic interest (SGEI) can serve as a justification for national regulation restricting the operation of the free market. SGEIs are commonly defined as economic activities that would not be generated by market forces alone or at least not in the form of an affordable service available to all on a non-discriminatory basis.[176] SGEIs are carried out in the public interest under conditions defined by the State, which imposes a public service obligation on one or more providers.[177] The concept 'service of general economic interest' (SGEI) is mentioned in article 106(2) Treaty of the Functioning of the European Union (TFEU).

A key value of EU Member States' health care systems, which applies to welfare services more generally, is universal access or coverage.[178] To guarantee universal coverage, the national government plays a vital role in regulating market-oriented systems. After all, the health care market is characterised by several instances of market failure, for instance information asymmetry and risk selection.[179]

176 J. Almunia (2011) Reform of the state aid rules for services of general economic interest (SGEI) and decisions on WestLB, Bank of Ireland and France Telecom. Press conference, Brussels, 20 December 2011. SPEECH/11/901.

177 European Commission, 2011, *State aid: Commission adopts new package on state aid rules for services of general economic interest (SGEI) – frequently asked questions.* Retrieved 25 January 2017, http://europa.eu/rapid/press-release_MEMO-11-929_en.htm.

178 U. Neergaard, 'Services of general economic interest: the nature of the beast', in: M. Krajewski, U. Neergaard and J.W. van de Gronden (eds.), *The changing legal framework for services of general interest in Europe – between competition and solidarity* (The Hague: Asser Press, 2009) pp. 17-50.

179 S. Lavrijssen and S. de Vries, 'Chapter 19, Netherlands', in: M. Krajewski, U. Neergaard and J.W. van de Gronden (eds.) *The changing legal framework for services of general economic interest – between competi-*

When a service is determined to be an SGEI, Member States may enact measures which would otherwise be contrary to the rules of the Treaties, notably the competition rules. Member States retain a wide discretion to define SGEIs, i.e., to use the concept of an SGEI as a tool to intervene in the market. This discretion is subject only to a test for manifest error of assessment.[180]

The closest attempt at clarifying the 'manifest error of assessment' test was made in *BUPA* where the European Court of Justice (ECJ) noted that the minimum criteria all SGEIs must fulfil are the presence of an act of the public authority entrusting the operators in question with an SGEI mission and the universal and compulsory nature of that mission.[181]

In *BUPA*, the ECJ deferred to the principal prerogative of the Member States to define their services of general economic interest. The case concerned an Irish law that established a risk equalisation scheme for private medical insurance. Private insurers whose clients were below the average risk profile –like BUPA– would have to pay a fee, while insurance companies that provided insurance coverage for clients above the average risk profile were entitled to receive a payment. Claiming that the equalisation scheme constituted a breach of EU competition law, BUPA brought proceedings before the EU courts in the course of which the question arose whether private medical insurance was a public service that could fall under article 106(2) TFEU.

In Ireland a private medical insurance system operates alongside a tax based system. According to the facts of the case, approximately 50 per cent of the Irish population had taken out private insurance with one of the three private insurers. BUPA was one of the three insurance companies, but withdrew from the market in 2007 after its appeal against the introduction of a risk equalisation scheme was rejected. The idea of setting up a risk equalisation scheme was that it should contribute to the attainment of the public interest objectives served by private insurance, which are open enrolment (anyone under the age of 65 must be accepted), lifetime cover, community rating and minimum benefits policy.[182]

tion and solidarity (The Hague: Asser Press, 2009) pp. 383-422.

180 G.S. Ølykke and P. Møllgaard, 'What is a service of general economic interest?', *European Journal of Law and Economics* 41(1) (2016) 205–241.

181 *BUPA*, see *supra* note 125, para. 172.

182 S. de Vries, 'BUPA: a healthy case, in the light of a changing constitutional setting in Europe?', in: J.W. van de Gronden, M. Krajewski, U. Neergaard and E. Szyszczak (eds.) *Health care and EU law* (The Hague: Asser Press, 2009) pp. 295-318.

One aspect of the case which is important to be discussed for the purposes of this paper is that the ECJ classified private medical insurance as an SGEI, even though only about 50 per cent of the Irish population was covered by this additional insurance when the case was filed.[183] The ECJ addressed this fact, and the requirement of universality which it itself had specified as a mandatory characteristic of an SGEI, by stating that: 'The compulsory nature of the service and, accordingly, the existence of an SGEI mission [is] established if the service-provider is obliged to contract, on consistent conditions, without being able to reject the other contracting party. That element makes it possible to distinguish a service forming part of an SGEI mission from any other service provided on the market and, accordingly, from any other activity carried out in complete freedom.'[184] In other words, as long as the service is available to all of the population, the condition of universality is satisfied.[185] The essential core of the definition of an SGEI thus lies in their potentially universal nature.

In the *BUPA* case, the ECJ concluded Irish additional health insurance to be an SGEI.

When the minimum criteria of an SGEI are fulfilled, a violation of the competition rules can potentially be justified under article 106(2) TFEU.

Coming back to the two cases at issue, the question arises whether Slovenian additional health insurance could be defined as an SGEI. Nikolič lists several arguments to defend this position.[186] First, additional health insurance is an economic activity. Health insurance companies offer voluntary health insurance coverage and take on the financial risk of engaging in this line of business. Second, the Slovenian legislator has stated that additional health insurance is a part of the social security system.[187] Additional health insurance is an important and indispensable source of financing for the Slovenian health care system.[188] The majority of the Slovenian population has taken out additional health insurance. Statutory user charges (co-payments) make up 85 per cent of total reimbursements by the Slovenian additional health insurance scheme. Third, the specific obligations, i.e., community rating, open enrolment and lifetime cover, which insurance companies offering additional health coverage have to respect, have been decreed by

183 *BUPA*, see *supra* note 125, para. 17.
184 *BUPA*, see *supra* note 125, para. 190.
185 *Supra* note 179.
186 B. Nikolič, 'Slovenian complementary health insurance as a service of general economic interest', *International Public Administration Review*, 13(1) (2015) 49-67.
187 Art. 62 ZZVZZ.
188 Additional health insurance covers over half of private health expenditure with private health expenditure representing close to 30 per cent of total health expenditure.

the legislator.[189] Fourth, Slovenian additional health insurance can be ascribed a universal and compulsory nature since insurance companies are obliged to contract without being able to reject the other contracting party (cf. open enrolment).

Unlike the Belgian public interest argument –consumer protection– Slovenia's public interest argument that Slovenian additional health insurance ought to be considered as a part of the social security system was rejected by the ECJ.

5.5. FREE MARKET OR REGULATION?

A clear indication of how the organisation of additional health insurance within the EU should evolve cannot be derived from the recent ECJ case law. Should competition be fostered or should more regulation be imposed? Starting from the Belgian and Slovenian ECJ cases on price regulation in the additional health insurance market, the discussion is broadened to the question of the extent to which free market rules effectively apply to additional health insurance in the EU. The case law discussed above can serve as a starting point for an evaluation of where we stand today and what we should be heading for. What is the future role of additional health insurance within the framework of social health insurance systems in the EU? This article aims at stimulating the discussion on how additional health insurance ought to be organised in order to generate added value for the health care system without jeopardising equity concerns such as equal access to essential health care.

According to the European Commission, consumers' interests are best protected by promoting free market principles: 'competition encourages enterprise and efficiency, creates a wider choice for consumers and helps reduce prices and improve quality'.[190] However, according to Thomson and Mossialos, there is no evidence to suggest that the expected benefits of competition have, as yet, materialised in the private health insurance sector.[191] Private health insurance premiums have risen rather than fallen, often faster than inflation in the health sector as a whole, while insurers' expansion across

189 Art. 62-62c ZZVZZ.

190 European Commission, 'Why is competition policy important for consumers?', 16 April 2012. Retrieved 26 January 2017, http://ec.europa.eu/competition/consumers/why_en.html.

191 *Supra* note 133.

national borders has been limited to cross-border mergers and acquisitions, rather than genuinely new entrants to the market.[192] [193]

Equal access to health care is at the core of equity in health which implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided.[194] The Constitution of the World Health Organisation sets out the following principle as 'basic to the happiness, harmonious relations and security of all peoples': 'The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.'[195]

Equity of access to health care services can be improved by defining essential health care services.[196] Essential health care services should be made accessible to everyone within the health care system. The Committee on Choices in Health Care, the so-called Dunning Committee, established in 1990 in the Netherlands, has developed a set of four principles, to be applied successively, in order to delineate essential from non-essential health care services: necessity, effectiveness, efficiency, and individual responsibility. The principle of necessity is defined very broadly, basically meaning any treatment that is necessary to maintain or restore health, or to relieve suffering.[197] With regard to the principle of effectiveness, only interventions where there is evidence for an effect are covered. The services to be covered are further narrowed down by those that give value for money, by only funding efficient services. Finally, services that are best dealt with by the individuals themselves are excluded (i.e., services that can easily be paid for by the individuals themselves).[198]

192 E. Mossialos and S. Thomson, *Voluntary health insurance in the European Union* (Copenhagen: World Health Organization, 2004). Retrieved 26 January 2017, *www.euro.who.int/__data/a**sse**ts/pdf_file/0006/98448/E84885.pdf.*

193 A. Sagan and S. Thomson, *Voluntary health insurance in Europe, role and regulation* (Brussels: European Observatory on Health Systems and Policies, 2016). Retrieved 26 January 2017, http://www.euro.who.int/en/about-us/partners/observatory/publications/studies/voluntary-health-insurance-in-europe-role-and-regulation.

194 M. Whitehead, 'The concepts and principles of equity and health', *International Journal of Health Services*, 22(3) (1992) 429-445.

195 World Health Organisation, *Basic Documents*, Forty-fifth edition, Supplement, October 2006. Retrieved 26 January 2017, http://www.who.int/about/mission/en/.

196 N. Söderlund, 'Possible objectives and resulting entitlements of essential health care packages', *Health Policy*, 45(3) (1998) 195-208.

197 W.P.M.M. van de Ven, 'Choices in health care: a contribution from The Netherlands.' *British Medical Bulletin*, 51(4) (1995) 781-790.

198 L.M. Sabik and R.K. Lie, 'Priority setting in health care: lessons from the experience of eight countries', *International Journal for Equity in Health*, 7(4) (2008) 1-13.

If additional health insurance really is so important that restrictive regulation is needed, would it not be better to integrate additional health insurance within the social security system? The poor, the sick and the old who cannot afford voluntary additional health insurance are not protected by government designed consumer protection rules regarding the additional health insurance market. As a consequence, regulation of additional health insurance protects only the well-off (or better-off) customers who can afford to buy additional health insurance. When additional health insurance covers essential health care, a more equitable result might be reached by integrating that care into the social security system rather than by developing restrictive regulation protecting only the well-off part of the population who can afford additional health insurance.

In Slovenia, where additional health insurance primarily covers co-payments, lower income groups might be better served by a decrease in co-payments or by direct subsidies rather than by introducing restrictive regulation for voluntary additional health insurance.

In Belgium, additional health insurance mainly covers hospital care. About half of the money reimbursed by additional health insurance relates to the price of a stay in a private hospital room. Since quality of care in a private room is no better than in a double or common room, it might be difficult to uphold the view that special protection from government is needed to secure access to private hospital rooms.

New health technology is often reimbursed by additional health insurance. From an equity point of view –if essential health care services are concerned– new health technology should be integrated in basic health insurance rather than protecting only those customers who can afford additional cover.

Additional health insurance also provides financial protection from co-payments. Traditionally, co-payments were introduced to reduce moral hazard.[199] Co-payments are meant to prevent people from seeking medical care that may not be necessary. Apart from their traditional role, co-payments also allow the public sector to shift costs on to households.[200] In countries where private additional health insurance covers co-payments, the scope of statutory coverage might erode over time and there are concerns

199 M. Chalkley and R. Robinson, *Theory and evidence on cost sharing in health care: an economic perspective* (London: Office of Health Economics, 1997). Retrieved 26 January 2017, https://www.ohe.org/publications/theory-and-evidence-cost-sharing-health-care-economic-perspective.

200 S. Thomas, S. Thomson and T. Evetovits, 'Making sense of complementary health insurance', final report, Slovenian Ministry of Public Health, 2015. Retrieved 26 January 2017, http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/Analiza/21012016/21012016Report_Making_sense_of_CHI_-_Slovenia.pdf.

about the fact that those who do not have additional health insurance may face financial and other barriers to accessing health care.[201]

If there is insufficient public funding to reduce co-payments and to integrate (new) health technology within the mandatory basic health insurance system, basic health insurance could be extended with private funding. Low income groups, who cannot afford private funding, could be subsidised. The French government has chosen this option. In 2014, 7.4 per cent of those covered by additional health insurance benefited from a public programme providing free coverage to the poorest ('complementary universal health coverage', '*couverture maladie universelle complémentaire*' (CMU-C)).[202] Individuals with an income above the CMU-C ceiling can get a voucher to partially fund the premium for an additional health insurance contract ('*aide complémentaire santé*').

If all essential health care would be covered by an affordable basic health insurance scheme, there is no need to develop restrictive regulation for the voluntary additional health insurance market (covering non-essential health care).[203] With all essential care being covered by the social security system, customers taking out voluntary health insurance would no more need special government protection than customers taking out home or car insurance.

In the Netherlands, the situation is clear-cut. According to the Dutch government all essential health care is covered by mandatory basic health insurance. Voluntary additional health insurance, providing top-up cover for alternative medicine, dental care and physiotherapy, is not regulated by the government.[204]

However, as long as essential health care is not always reimbursed by mandatory basic health insurance and as long as statutory user charges (co-payments) remain quite substantial or fee supplements –extra billing– continue to exist, additional health insurance schemes may well be important for securing access to health care. In two EU countries,

201 S. Thomson and E. Mossialos, 'Private health insurance in the European Union. Final report prepared for the European Commission, Directorate General for Employment, Social Affairs and Equal Opportunities', London School of Economics, 24 June 2009. Retrieved 26 January 2017, http://ec.europa.eu/social/BlobServlet?docId=4216&langId=en.

202 C. Franc and A. Pierre, 'Compulsory private complementary health insurance offered by employers in France: implications and current debate', *Health Policy*, 199(2) (2015) 111-116.

203 M.V. Pauly, 'A plan for a responsible national health insurance', *Health Affairs* 10(1) (1991) 5-25.

204 See e.g., the letter of the Dutch government to the Parliament (Tweede Kamer) 'Beantwoording kamervragen over bericht dat vrouwen die zwanger zijn worden verwezen naar een andere zorgverzekeraar', 19 January 2016. Retrieved 26 January 2017, https://www.rijksoverheid.nl/ministeries/ministerie-van-volksgezondheid-welzijn-en-sport/documenten/kamerstukken/2016/01/19/beantwoording-kamervragen-over-bericht-dat-vrouwen-die-zwanger-zijn-of-willen-worden-worden-verwezen-naar-een-andere-zorgverzekeraar.

France and Slovenia, private additional health insurance accounts for more than ten per cent of total health expenditure.[205] Markets with substantial statutory user charges have the highest levels of additional health insurance coverage.[206] Over half of the Irish population is covered by additional health insurance which covers statutory user charges and reimbursement of treatment in private hospital beds.[207] In countries where additional health insurance plays an important role, a regulatory framework has been developed to facilitate access and to protect consumers.

Free market and regulation need not be opposites. Competition does not exclude regulation. On the contrary, regulation can improve competition and help create a level playing field. Regulation can empower consumers, e.g., by creating more transparency (for instance, by obliging the use of standard clauses or even the use of standard contracts in additional health insurance). In the second half of the 1990s, the Office for Fair Trade (OFT), at the time the United Kingdom's regulatory agency for consumer protection,[208] launched an investigation following concerns that customers lacked adequate information when buying private medical insurance. Regarding the ability of consumers to compare different products, the OFT reported: 'different plans are presented in different ways, and it is difficult –if not impossible for those outside the industry– to compare them in terms of value for money'. The OFT also found problematic 'the absence of information regarding past and likely future increases in the premium'.[209]

A main obstacle for efficient and effective regulation is the information asymmetry between insurers and government. In Belgium, for instance, government regulation states that the medical index –used to adjust additional health insurance premiums to the evolution of health care costs– cannot be negative, even when cost evolution is negative. Such regulation may not be in the best interest of consumers. Another issue is that a medical index of this sort could act as a disincentive for insurance companies to reduce costs, because they know that in the end cost increases will be covered by the medical index. In this way, the application of medical indices could even have an inflationary effect.

205 France: 14.4 per cent (2014); Slovenia: 14.8 per cent (2015). Source: OECD Health Statistics 2016, see *supra* note 137.

206 France: 95.5 per cent (2014); Slovenia: 72.8 per cent (2013). Source: OECD Health Statistics 2016, see *supra* note 137.

207 D. McDaid, M. Wiley, A. Maresso and E. Mossialos, 'Ireland: Health system review'. *Health Systems in Transition* 11(4) (2009) 1-268.

208 The OFT has since been replaced by the Competition and Markets Authority (CMA).

209 T. Foubister, S. Thomson, E. Mossialos and A. McGuire, *Private medical insurance in the United Kingdom* (Brussels: European Observatory on Health Systems and Policies, 2006).

When all essential care is included in the social security system and barriers to care (e.g., high co-payments) have been removed, the market for voluntary additional health insurance could be opened to private –for profit or not for profit– companies with real competition actively being fostered.

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6. Optimal design of PHI products

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6.1. INTRODUCTION

In Europe, on average 70% of total expenditure on dental care is private expenditure and 16% of this private expenditure is covered by complementary dental insurance (CDI) [1]. However, most CDI products currently on the market in Belgium, France, Germany and the Netherlands are not optimal because (i) they provide little protection against financial risk and do not improve access to otherwise unaffordable dental treatment (e.g., implants and crowns) and (ii) moral hazard and adverse selection are not sufficiently counteracted. The suboptimal character of CDI can be explained by supply-side aspects (the limits of insurability) and demand-side aspects (behavioural economics). On the basis of these potential explanations, strategies will be drawn to optimise dental insurance.

We begin by presenting a framework for optimal insurance design, as well as the current situation of CDI in Belgium, France, Germany and the Netherlands.

6.2. OPTIMAL HEALTH INSURANCE DESIGN

Health insurance has two important advantages for the consumer, but also two disadvantages (see table 1 below). On the one hand, health insurance reduces the financial risk for the insured and provides access to health care that would otherwise be unaffordable [2]. On the other hand, insurance increases costs due to loading costs – the administrative and other expenses of the insurer – and moral hazard. In relation to dental care, perhaps more so than in relation to other types of care, a choice is possible between cheaper basic treatments and more expensive 'luxury' treatments (e.g., placing a metal crown versus a porcelain crown), which may result in substantial moral hazard (both consumer- and supplier-induced moral hazard).

Table 1. Advantages and disadvantages of health insurance

Advantages	Disadvantages
Reduction of financial risk for the insured	Loading costs
Access to health care that would otherwise be unaffordable	Moral hazard

Optimal health insurance should maintain the advantages and reduce the disadvantages as much as possible. First, it should reduce the insured's financial risk as far as possible. Because trivial risks lead to losses that can be borne by the insured without any noticeable burden, optimal insurance should not provide coverage for trivial risks. This avoids relatively high administrative expenses and loss settlement costs (loading costs) that are very high for these risks compared with the pure risk premium.

Secondly, optimal insurance should provide 'access to health care that would otherwise be unaffordable'. This implies that cover limits should be avoided and expensive care should be covered as much as possible.

Third, the optimality of CDI can be increased by restricting the loading costs of dental insurance by increasing insurers' efficiency.

Fourth, to reduce moral hazard optimal insurance should involve cost-sharing arrangements such as deductibles and co-insurance, and apply managed care. A deductible makes the enrolee responsible for all costs up to a defined threshold. A co-insurance rate makes the enrolee responsible for a percentage of costs. Optimal insurance contracts should also have a stop-loss, a limit on out-of-pocket expenses [3].

Fifth, optimal insurance should also counteract adverse selection as much as possible. Adverse selection occurs when the insured knows more information about his expected losses than the insurer knows or uses in his premium setting and underwriting process. Adverse selection can be counteracted by selective underwriting (using medical questionnaires), risk rating (setting higher premiums for groups presenting high risk, e.g., age-related) and product differentiation (designing benefits so to attract lower risks).

The features of optimal health insurance are summarised in the first column of table 4 below.

6.3. COMPLEMENTARY DENTAL INSURANCE IN BELGIUM, FRANCE, GERMANY AND THE NETHERLANDS

Complementary dental insurance (CDI) provides coverage for care that is either not covered or not fully covered by the mandatory basic insurance (MBI). In the four countries studied, private expenditure on dental care (i.e., not covered by MBI) expressed as a percentage of total expenditure on dental care ranges between 30% in Germany and 74% in the Netherlands (Table 2). CDI represents 3% (Belgium) to 55% (Netherlands) of total expenditure on dental care. Out-of-pocket expenditure on dental care is the highest in Belgium (42%) and the lowest in the Netherlands (19%).

The coverage provided by CDI is complementary to that provided by MBI, which covers 26% (the Netherlands) to 70% (Germany) of total expenditure on dental care. Table 3 provides an overview of the dental care covered by MBI in the four countries.

6.3.1. No optimal dental insurance

Currently, CDI offered in Belgium, France, Germany and the Netherlands cannot be described as 'optimal' (Table 4). German CDI responds best to the criteria of optimal health insurance.

Table 2. Dental care: expenditure and insurance

	Belgium	France	Germany	Netherlands
Average expenditure per person on dental care	€150	€160	€314	€179
Private expenditure (i.e., not covered by MBI)[a]	45%	65%	30%	74%
Complementary dental insurance (CDI)[a]	3%[b]	43%	5.4%	55%
Percentage of population with CDI	**5%**	**95%**	**18%**	**62%**

[a] As share of total expenditure on dental care
[b] Authors' estimate
Source: [1].

Table 3. Dental care covered by mandatory basic health insurance

	Belgium	France	Germany	Netherlands
Conservative care (e.g., fillings)	+++[a]	+++[a]	+++	+[b]
Orthodontics (e.g., braces)	+	+	++	-
Prosthetics (e.g., implants, bridges, crowns)	-	+	+	-
Periodontics (gum disease treatment)	+	+	++	-

+++: good coverage
++: medium coverage
+: low coverage
-: no coverage
[a]: extra billing is possible
[b]: conservative dental care is covered for children only (under age 18)

Table 4. Complementary dental insurance: presence of features of optimal health insurance design

	Belgium	France	Germany	Netherlands
No upper limit on coverage	-	-	+	-
No coverage of trivial risks	-	-	-	-
Deductible	-	-	-	-
Co-insurance	+	-	+	+
Cap on out-of-pocket expenses	-	-	-	-
Selective underwriting	-[a]	-[a]	+	-[a]
Risk rating	+	+	+	+
Product differentiation	+	+	+	+
Managed care	-	+	+	+

-: The feature is not present in CDI products offered.
+: The feature is present in CDI products offered.
[a] Selective underwriting is applied only for a limited number of contracts, i.e., those with the highest upper limits on coverage.

Only in Germany are there no upper limits on coverage for dental care (after an initial period). CDI in the other three countries does not provide access to otherwise unaffordable health services and protection against unpredictable high financial risks. For example, replacing four teeth by implants and crowns can cost about €10000. Upper limits of only €250 (the Netherlands) or €1000 (Belgium) do not provide protection against high financial risks nor do they make this kind of dental care more accessible. In France, even the most extensive complementary covers provide a maximum amount of only €750 per year for implants. With total costs for an implant easily amounting to about €2500, €1750 still needs to be paid for out-of-pocket after complementary insurance has kicked in. In all four countries CDI provides coverage of trivial risks.

In all four countries, cost sharing is applied, but only in the form of co-insurance. Co-insurance rates vary between 0% and 50% in Belgium, 0% and 55% in Germany and 0% and 25% in the Netherlands. In France, co-insurance is generally not used. In Germany and the Netherlands, many products are offered with 0% co-insurance. Deductibles are not used. Caps on out-of-pocket expenses, which protect the consumer against high financial risk, are not applied in any of the four countries studied.

Selective underwriting is primarily used in Germany, and to a lesser extent in the other three countries. In Belgium, selective underwriting is used by only one insurer offering CDI. In France, where a 7% tax has to be paid for contracts that apply selective underwriting, most CDI contracts abstain from selective underwriting. In Germany, a medical questionnaire needs to be filled out for most CDI products. The insurer can decline to cover the candidate or charge an additional premium or exclude missing teeth or the use of certain techniques from the scope of coverage. Insurance products without selective underwriting usually have contractual clauses excluding reimbursement for problems that existed well before the start of the contract and for treatments running at the moment of the conclusion of the contract ('pre-existing conditions'). In the Netherlands, selective underwriting is rarely applied (only for the high-end dental coverage).

In all four countries, risk rating and product differentiation are used to a certain extent (e.g. age-related premiums). Products are designed and marketed to attract certain market segments.

In all countries except Belgium, preferred provider networks are used as an element of managed care for CDI. In all countries, waiting times are used as a means to contain costs and to counteract adverse selection.

6.4. WHY IS DENTAL INSURANCE SUBOPTIMAL?

Both supply-side aspects (the limits of insurability) and demand-side aspects (behavioural economics) may explain why dental insurance is not optimal.

6.4.1. Limits of insurability

A potential explanation of why insurers offer suboptimal CDI is that optimal CDI exceeds the limits of insurability. According to Berliner [4], risks properly belong in the area of insurability where: (1) losses occur with a high degree of randomness; (2) the maximum possible loss for the insurer is limited; (3) the average loss amount upon loss occurrence is small; (4) the average time interval between two loss occurrences is small (i.e., losses occur frequently); (5) the insurance premium is sufficiently high; (6) there is virtually no possibility of moral hazard; (7) coverage of the risk is consistent with public policy; and (8) the law permits the cover.

Public policy (7), moral hazard (6), the degree of randomness of losses (1) and the maximum possible loss (2) are important issues as far as the suboptimality of CDI is concerned.

Public policy plays an important role in Belgium, France and the Netherlands, where the 'solidarity' principle is paramount in health care financing. Equal access to health insurance is at the heart of the values of the mutual insurers ('mutuelles') established in those countries. Their goal is to organise solidarity between their members for the reimbursement of health care costs. According to the French 'Code de la mutualité', medical questionnaires may not be used by mutuals and thus selective underwriting cannot be applied. The solidarity idea is not restricted to mutuals. In France, for instance, a 7% tax is due when selective underwriting is applied. So, commercial insurance companies are encouraged by the French government not to apply selective underwriting. In Belgium as well, the government intervenes in the organisation of CDI. Premium increases for existing clients are strictly regulated. Premiums can only be adjusted in line with the consumer price index or a specific 'medical index' for dental care, which is calculated annually by the Ministry of Economic Affairs.

Fear of reputational damage and the wish to avoid (further) restrictive regulation being adopted may help to explain why (commercial) insurance companies in Belgium, France and the Netherlands refrain from applying 'hard insurance logic' such as selective underwriting. By offering limited coverage which is equally accessible for all citizens, insurers willingly refrain from applying private insurance logic. Rather, they apply 'social security mechanisms' (open enrolment, no selective underwriting, community rating). Insurance companies may be concerned that the unfettered application of insurance

logic could provoke a reaction from the regulator. In a market where it is impossible or very difficult for mutuals to engage in selective underwriting, commercial insurance companies applying selective underwriting could easily be accused of 'cherry-picking'. By sticking to social security-type mechanisms, insurance companies err on the safe side. However, insurers' reluctance to apply private insurance logic (such as selective underwriting) and reliance on other methods (such as setting upper limits on coverage) lead to the development of suboptimal CDI products.

Moral hazard is an important problem due to the very nature of dental care. Choices among different treatment options are strongly influenced by individual consumer preferences, where aesthetic aspects often play a role. Dentists also have their preferences, which can be influenced by the consumer's and insurer's 'willingness to pay'. Dental insurance can thus provide fertile ground for both consumer- and provider-induced moral hazard. Therefore, in an optimally designed scheme, insurers ought to fully invest in countermeasures. However, classic private insurance measures such as deductibles and co-insurance are not or are not fully implemented due to public policy concerns. Rather, insurers prefer to use other measures such as offering restricted coverage, setting upper limits on coverage and not applying a cap on out-of-pocket expenditure. However, this contributes to the development of suboptimal CDI products.

The degree of randomness of losses varies between total randomness and absolute predictability. Pre-existing conditions come close to being absolutely predictable. In Belgium, France and the Netherlands, CDI covers pre-existing conditions. Consequently, adverse selection is inadequately counteracted and a vicious circle arises whereby the insurer needs to repeatedly increase premiums to be able to continue coverage for the high risks that have subscribed the insurance policy. This leads to the development of suboptimal CDI products [5]. By comparison, in Germany, CDI is effectively limited to future, unforeseen events. It may not be a coincidence that CDI in Germany generally provides unlimited coverage, in contrast to the situation in Belgium, France and the Netherlands.

The 'maximum possible loss' is also a potential explanation for the sub-optimality of CDI. Certain dental treatments, i.e., prosthetic treatments such as the replacement of multiple teeth, constitute a risk with a relatively large loss amount (more than €10,000) and a low loss frequency. Such risks can only be made insurable if the insurer is given the opportunity to build up long-term loss reserves from its premium income. However, CDI contracts can be cancelled by the insured every year. Uncertainty about the duration of the contract together with moral hazard and adverse selection may lead insurers to limit coverage, resulting in suboptimal dental insurance.

6.4.2. Behavioural economics

Van Winssen et al. [6] explored potential explanations of why individuals choose suboptimal complementary health insurance. Based on key insights from behavioural economics they discuss several factors that can have an impact on the high uptake of suboptimal insurance by consumers. For CDI the following factors are relevant.

Factors such as liquidity constraints and debt aversion may help to explain why people buy dental insurance products that provide only limited coverage. Liquidity constraints imply that individuals do not have the means to free up (substantial) funds at a given point in time. Debt aversion stems from mental accounting theory [7] and is illustrated by individuals' preference to prepay for consumption and to get paid for work after completion.

Ignorance and social comparison may also affect individuals' willingness to purchase suboptimal insurance. People often do not know exactly what they are insuring themselves against by taking out complementary dental insurance (see, e.g., [8]) and they often do not know the costs of dental care that is (not) covered by their insurance. They often rely on what their peers decide [9].

6.5. STRATEGIES FOR OPTIMISING COMPLEMENTARY DENTAL INSURANCE

In many countries, MBI does not cover certain types of dental care such as prosthetic treatments (e.g., crowns, implants and bridges) or provides only limited coverage (see, e.g., Table 3). With 70% of total expenditure on dental care being privately financed in Europe, CDI can play an essential role in the affordability and accessibility of dental care. Therefore, it is important for CDI products to respond as closely as possible to the features of optimal insurance design. However, currently many CDI products on the market are suboptimal. The gap with optimal insurance design can be explained by both supply-side aspects and demand-side aspects. From these potential explanations, the following strategies to optimise CDI can be drawn.

First, public policy would like voluntary CDI products to provide both optimal insurance coverage and equal access to insurance. However, this is not possible because optimal insurance requires selective underwriting and risk rating (to counteract adverse selection to protect existing clients against free riders who abuse the insurance system), which is inconsistent with the principle of equal access. Therefore policymakers should carefully decide which types of dental care are essential and ought to be covered by MBI. Dental care which is considered non-essential by policymakers and which is therefore

not covered by MBI should be subject to private insurance logic. If, because of budgetary constraints, essential dental care cannot be covered by MBI, subsidisation of private insurance for persons with low incomes might be an alternative to full public provision.

Second, moral hazard could be counteracted by the systematic use of deductibles and co-insurance. Standard lists of usual market prices could be compiled (as, e.g., in the Netherlands and France) and provider networks adhering to a price list could be created. Insurers should not shy away from legal action in case of excessive amounts being claimed (i.e., excessive extra billing).

Third, selective underwriting and risk rating could be used to counteract adverse selection and to protect existing clients against free riders who abuse the insurance system. Providing insurance for pre-existing conditions is incompatible with the insurance principle that only future, unforeseen risks can be covered: a burning house cannot be insured.

Fourth, applying waiting times for expensive treatments such as prosthetics and providing only limited coverage during the initial years of the contract constitute alternatives to a general limitation of coverage. For instance, in Germany, limited coverage typically applies during the first four years of the insurance contract.

Fifth, behavioural economics aspects such as liquidity constraints and debt aversion could be dealt with by offering a combination of optimal dental insurance in combination with a health (dental) savings account. The dental savings account could be used to finance trivial costs. In this way, CDI could be optimised and would not be tainted by attempts to also cover trivial risks. Ignorance and social comparison can be taken care of by improving the transparency of CDI products. Consumer organisations can play an important role in clarifying the market offer for the consumer.

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7. Conclusion and discussion

7.1. CONCLUSION

In this section, we will answer the research questions (see Chapter 1). The answers are based on the papers included in the previous chapters.

7.1.1. Reliability of OECD Health Statistics

Research question 1:
In how far are OECD Health Statistics on private expenditure on health for Belgium reliable?

We have compared -for the year 2010- the official estimates of private health expenditure for Belgium (as published in the OECD Health Statistics[210]) with estimates based on alternative sources and calculations. As alternative sources, we have used both publicly available information and billing data from professional associations and private companies. We have applied the methodology of the International Classification of Health Accounts: sources of funding (HF)[211] and providers of health care services and goods (HP)[212] giving an insight in where the money comes from (HF) and where the money goes to (HP).

Table 1 shows the results of this comparison. The most significant differences between the official estimates and alternative calculations can be found in the following sectors: (1) general hospitals, (2) nursing care facilities (homes for the elderly), (3) community care facilities for the elderly, (4) all other residential care facilities (residential care for the disabled), (5) offices of other health practitioners (such as physiotherapists and psychologists) and (6) vision products.

Our conclusion is that official estimates of private expenditure on health for Belgium are not reliable. For instance, according to OECD Health Statistics, private expenditure on hospitals in Belgium amounts to 3.1 billion EUR, while according to our alternative calculations these expenses represent only 1.1 billion EUR. Total private expenditure on health differs only slightly (9.4 billion EUR [alternative calculations] versus 9.3 billion EUR [OECD]), but this is a mere coincidence.

Dirk Moens, who is responsible with the Belgian Federal Service Social Security for producing the official estimates of health expenditure for Belgium, co-authored the

210 Formerly 'OECD Health Data'. Official estimates on health expenditure are produced by the Belgian Federal Public Service Social Security. The estimates are collected, validated and published in a joint effort by OECD, WHO and Eurostat.
211 HF: 'health financing', expenditure on health by source of funding.
212 HP: 'health provider', expenditure on health by provider.

paper on this subject. The publication of the paper has led to a revision of some of the official estimates. For instance, for 2010, private expenditure on inpatient long-term nursing care (homes for the elderly) has been revised from 420 million EUR (OECD Health Statistics 2011) to 950 million EUR (OECD Health Statistics 2017). Private expenditure on therapeutic appliances (i.e., glasses and other vision products and hearing aids) has also been revised: from a mere 22 million EUR (OECD Health Statistics 2011) to 395 million EUR (OECD Health Statistics 2017).

Research question 2:
What are the major obstacles to a correct estimation of private expenditure on health?

We distinguish four potential sources of problems: (1) the interpretation of definitions, (2) the formulation of assumptions, (3) missing or incomplete data and (4) incorrect data.

(1) Interpretation of definitions

A narrow or broad interpretation of the definitions listed in the OECD Manual 'A System of Health Accounts' (SHA) can give totally different results for private expenditure on health. The definitions used in relation to private expenditure on homes for the elderly can illustrate this problem. In Belgium, there are two types of homes for the elderly: homes for individuals requiring extended nursing care ('nursing homes')[213] and homes for individuals requiring limited care ('rest homes').[214] For the calculation of the Belgian official estimates, the choice has been made to include private expenditure for the first type of homes but not for the second type. There are two problems with this approach. First, although the scope of the SHA category 'nursing care facilities' is indeed limited to 'individuals requiring nursing care', private expenditure on rest homes could be allocated to the SHA category 'community care facilities for the elderly'. This category addresses 'persons unable to fully care for themselves and/or unwilling to live independently'. Second, in the OECD Health Statistics for Belgium, public expenditure on both types of homes for the elderly has been taken into account. However, as far as private expenditure is concerned, only nursing homes have been taken into account. The question can be raised whether including only public expenditure on rest homes and not private expenditure does not result in an inconsistency between public and private expenditure on health.

213 'Maisons de repos et de soins' (MRS)/'Rust- en verzorgingstehuizen'(RVT).
214 'Maisons de repos pour personnes âgées' (MRPA)/'Rustoorden voor bejaarden' (ROB).

Table 1. Expenditure on health by provider and source of funding: OECD Health Data versus alternative calculations (Belgium 2010) (million €).

	General government expenditure (OECD)	Private sector expenditure (OECD)	Private sector expenditure (alternative calculations)
Hospitals	**8612**	**3139**	**1073**
General hospitals	7332	2436	966
Mental health and substance abuse hospitals	1188	451	95
Specialty (other than mental health and substance abuse hospitals)	92	252	12
Nursing and residential care facilities	**4238**	**397**	**1991**
Nursing care facilities *(homes for the elderly)*	2344	378	1136
Residential mental retardation, mental health and substance abuse facilities	109	18	*18**
Community care facilities for the elderly	0***	0	610
All other residential care facilities	1784	0	227
Providers of ambulatory health care	**8766**	**2991**	**3420**
Offices of physicians	3240	1537	1243
Offices of dentists	770	584	592
Offices of other health practitioners	987	182	717
Out-patient care centres	278	1	*1**
Medical and diagnostic laboratories	1471	184	293
Providers of home health care	1242	10	82
Other providers of ambulatory health care	778	492	*492**
Retail Sale and other providers of medical goods	**3764**	**2459**	**2627**
Dispensing chemists (pharmacies)	3731	2434	2248
(Pharmaceutical and other medical non-durables - HC.5.1)	(3735)**	(2317)**	*(2248)***
Retail sale and other suppliers of optical glasses and other vision products	23	3	357
Retail sale and other suppliers of hearing aids	0	20	*20**
(Hearing aids - HC.5.2.3)	(45)**	(56)**	*(60)***
Retail sale and other suppliers of medical appliances (other than optical goods and hearing aids) All other miscellaneous sale and other suppliers of pharmaceuticals and medical goods	10	2	*2**
Provision and administration of public health programs	**874**		
General health administration and insurance	**1501**	**331**	**331**
Other industries (occupational health care / private households)	**333**	**0**	**0**
Total general government expenditure / Total private sector expenditure	**28088**	**9316**	**9442**
Total expenditure		37404	37530
Total private sector expenditure (% of total expenditure)		24.9%	25.2%

* When no alternative data are available, OECD figures for private expenditure are being used.

** Figures for HC.5.1 and HC.5.2.3 have not been used to calculate total expenditure.

*** General government expenditure on community care facilities for the elderly is comprised in general government expenditure on nursing care facilities (homes for the elderly).

(2) Formulation of assumptions

Certain assumptions are being made for the allocation of total private expenditure on health to the different (sub)sectors of health care providers. Transparency in relation to these assumptions is crucial to allow for data on private expenditure to be criticised and improved. In this respect, we have had an excellent working relationship with the Belgian Federal Public Service Social Security which is responsible for producing the Belgian figures for the OECD Health Statistics. A critical assumption, for instance, is that statutory user charges can be used as a distribution key to allocate private expenditure to the different (sub)sectors of health care providers. Criticism of this assumption can be illustrated by supplementary fees, since there is not always a proportional relationship between user charges and supplementary fees. Certain (sub)sectors have substantial user charges and low supplementary fees while other (sub)sectors are characterised by significant supplementary fees and (almost) no user charges.

(3) Missing or incomplete data

Examples of missing data in the Belgian market are the figures on private expenditure for psychologists and dietitians. No aggregate data are available. The professional associations have made an estimate based on the number of providers, the average number of sessions and the average fee charged. According to this methodology, we arrive at a total of 230 million EUR private expenditure on self-employed, registered clinical psychologists and 60 million EUR on self-employed dietitians in Belgium. Incomplete data can also be a source of error. An example from the Belgian market are vision products. OECD Health Statistics list 3 million EUR for private expenditure on vision products (see Table 1). This figure pertains solely to co-payments for vision products that are reimbursed by mandatory basic health insurance.[215] Figures on total turnover in the market of vision products are not publicly available. Information from the industry shows that total turnover amounts to 475 million EUR. This example shows how lack of information can result in completely distorted results.

(4) Incorrect data

Incorrect data can be the result of the use of outdated information. For instance, for the production of the Belgian data on private expenditure on homes for the elderly, a ratio of 40 per cent nursing home beds and 60 per cent rest home beds has been used. However, in 2010, nursing home beds represented 49.4 per cent of total beds. Since only private expenditure on nursing homes has been included in the official Belgian figures, the 40:60 ratio applied results in an underestimation of private expenditure on homes for the elderly.

215 Reimbursement of vision products by mandatory basic health insurance totals 23 million EUR.

7.1.2. Supplementary physicians' fees

Research question 3:
What is the cost (evolution) of supplementary physicians' fees in Belgium and France?

In Belgium, more supplementary fees are charged per inhabitant than in France (see Table 2). For outpatient care, the difference between the two neighbouring countries is limited. However, for inpatient care, supplementary fees per inhabitant are almost three times higher in Belgium than in France.

In 2012, supplementary physicians' fees represented 8.9 per cent and 6.3 per cent of total private expenditure on health in Belgium and France respectively.

Table 2. Supplementary physicians' fees in Belgium and France (2012)[216]

	Belgium		France	
	Total	Average per inhabitant	Total	Average per inhabitant
Supplementary fees charged for outpatient care	€400 million	€36	€1851 million	€28
Supplementary fees charged in hospitals[216]	€381 million	€34	€793 million	€12
Total supplementary fees	€781 million	€70	€2644 million	€40

Sources: authors' calculations; DREES; Eurostat

In Belgian hospitals, both 'conventioned' and 'non-conventioned' physicians can charge supplementary fees for private rooms,. For outpatient care, only 'non-conventioned' physicians are allowed to do so.[217] Between 2011 and 2017, the percentage of 'non-conventioned' general practitioners and medical specialists has dropped from 12.3 to 10.6 per cent and from 20.0 to 16.7 per cent respectively (INAMI, 2016a).

In France, the percentage of liberal physicians working in sector 2, who are authorised to charge supplementary fees, has slightly increased from 24.7 per cent in 2000 to 25.3 per cent in 2014. While the percentage of general practitioners working in sector 2 has decreased from 13.9 to 9.0 per cent, the percentage of specialists working in sector 2 has increased from 37.1 to 43.4 per cent (Sécurité sociale, 2016b). 59 per cent of all new medical specialists chooses to work in sector 2 (Barlet and Marbot, 2016).

216 For 2015, figures are 531 million EUR and 937 million EUR for Belgium and France respectively (sources: INAMI, DOC CNMM 2017/34. Available at http://ima-aim.be/IMG/pdf/ima-rapport_ereloonsupplementen.pdf; Fierla A.: Toujours plus de dépassements d'honoraires dans les cliniques privées. Le Figaro, 27 December 2016. Available at http://www.lefigaro.fr/conjoncture/2016/12/27/20002-20161227ARTFIG00087-les-depassements-d-honoraires-des-cliniques-privees-ont-augmente-de-30.php (2016)).

217 'Conventioned' physicians can only charge supplementary fees in case of 'special demands' made by the patient (e.g., a late-night consultation).

The total amount of supplementary fees charged for classic hospital stays in Belgian hospitals (including minimum one-night) has increased by 7.1 per cent per year between 1998 and 2010. Over the same period, the total hospital bill for patients has increased by 3.0 per cent (Mutualité Chrétienne, 2011).[218] After adjustment for inflation, supplementary fees have increased by 32 per cent between 2004 and 2015, whereas the total patient bill has decreased by 5 per cent (Mutualité Chrétienne, 2016).

Unfortunately, data on supplementary fees for outpatient care in Belgium are scarce and do not allow for an evaluation of changes over time.

In France, average supplementary fees in sector 2 have risen from 25 per cent of official tariffs in 1990 to 54 per cent in 2010 (Léchenet, 2012). Between 2011 and 2015, the total amount of supplementary fees in private hospitals has risen from 676 million EUR to 867 million EUR (+ 28 per cent). In 2014, total supplementary fees charged by physicians amounted to 2.8 billion EUR (Sécurité sociale, 2016b), while in 2011 the figure was 2.4 billion EUR (Auguste, 2012).

While about three-quarters of the Belgian population has taken out complementary health insurance covering inpatient supplementary fees, less than five per cent is covered for outpatient supplementary fees. This may be explained by both supply and demand factors. Isolated outpatient bills tend to be relatively small while hospital stays may result in catastrophic medical expenses. Taking out health insurance to cover catastrophic expenses is more appealing. However, patients suffering from (multiple) chronic diseases can be confronted with significant outpatient bills. Processing small outpatient bills entails disproportionally large administrative costs for health insurers. As long as the majority of outpatient bills are on paper, health insurers will not be likely to promote complementary health insurance covering outpatient costs.

Research question 4:
How can cost inflation of supplementary physicians' fees be contained?

Several measures to curb cost inflation of supplementary fees can be implemented both by authorities and insurers. Supplementary fees can be prohibited for certain categories of patients (e.g., persons with low incomes) and in certain situations (e.g., emergency care). Reference tariffs can be set and supplementary fees can be capped. Supply-side

218 The figures mentioned (7.1 per cent and 3.0 per cent) are compound annual growth rates. The figures are based on an analysis of all hospital bills of the members of the Christian Mutualities. On 31 December 2015, the Christian Mutualities covered 4,574,738 people or 41.2 per cent of the Belgian population (INAMI, 2016b).

restrictions can be introduced and differences in quality of care can be limited. Insurers providing coverage for supplementary fees also have an important role to play. Coverage of supplementary fees can lead to both patient-induced and physician-induced moral hazard. Therefore, insurers ought to effectively counteract moral hazard by implementing measures such as co-insurance, deductibles and managed care. Insurers should not shy away from legal action against excessive supplementary fees.

Both in Belgium and France, several measures have not yet been implemented or only to a limited extent (see Table 3). So far, the measures that have been implemented in these countries have not yet resulted in a stabilisation or a reduction of supplementary fees.

Table 3. Measures to curb cost inflation of supplementary fees

Initiated by the authorities	**Belgium**	**France**
Prohibiting supplementary fees	✓[a]	✓[a]
Setting indicative/reference tariffs for supplementary fees	-	✓
Introducing supply-side restrictions	-	✓
Capping supplementary fees	-	-
Capping reimbursement of supplementary fees by additional health insurance	-	✓
Restricting differences in quality of care	✓[b]	-
Initiated by insurers	**Belgium**	**France**
Capping reimbursement of supplementary fees	✓	✓
Negotiating supplementary fees	-	-
Applying deductibles	✓	-
Applying co-insurance	-	-
Taking legal action against excessive supplementary fees	-[c]	-[c]

[a] Both in Belgium and in France, supplementary fees have only been prohibited for limited groups (e.g., people who get subsidies to buy additional health insurance) or in certain circumstances (e.g., emergency care)

[b] Since January 2017, physicians may no longer discriminate between patients who pay supplementary fees and those who do not. This legislation applies to inpatient care alone. The new rules are not well known by the public. So far, they have not been enforced.

[c] Legal action has only been taken by individuals in isolated cases. There are only judgments from lower courts.

Research question 5:

What is the added value of supplementary physicians' fees?

Historically, both in Belgium and in France, the system of supplementary fees was introduced to allow physicians to increase their revenue. Hence, the added value of supplementary fees for the physician is clear: a source of (extra) income. However, the added value for the patient is not clear.

In the 1990s, the Belgian courts already dealt with the issue of whether the system of supplementary fees linked to the use of a private hospital room could be justified from

a legal standpoint. Two courts –in 1993 and in 1997 respectively– ruled that supplementary fees are not acceptable unless additional health services are provided by the physician (‘*qu'il existe un "supplément" de prestations en contrepartie du "suppléments d'honoraires"*’).[219] The judges stated that extra services needed to be provided for the extra money paid in order for the supplementary fees to be justified (‘*quid pro quo*’). Since the two courts ruled at first instance, the judgments had only a limited impact.

For certain categories of self-employed medical specialists, supplementary fees constitute a substantial part of their income. Supplementary fees represent 35 per cent and 32 per cent of the total income of Belgian and French surgeons respectively.

Both in Belgium and France, hospitals also benefit from supplementary fees. In most hospitals, physicians need to cede a certain percentage of their supplementary fees to the hospital to help finance overhead costs.

Patients willing to pay supplementary fees may be offered convenient consultation hours late at night or comfortable private rooms in hospitals. However, while it is understandable that a patient might have to pay extra to the hospital for the use of a luxurious private room, it is difficult to understand why he/she should pay extra to the physician for staying in a private room.

A physician can refuse to treat a patient if the patient is not willing to pay the supplementary fees charged by the physician. Dormont and Péron (2016) found that French patients might choose to consult sector 2 specialists, who can charge supplementary fees, because they have difficulties in gaining access to other physicians, i.e., sector 1 specialists who do not charge supplementary fees. If, in a certain region, there are fewer sector 1 specialists, patients face search costs, waiting time and transportation costs in order to consult a specialist who does not charge more than the regulated fee.

In Belgian hospitals, supplementary fees are linked to the use of a private room. A review of the literature found that private rooms have a moderate effect on patient satisfaction with care, noise and quality of sleep, and the experience of privacy and dignity (van de Glind *et al.*, 2007). Conflicting results were found for hospital infection rates. In addition, there was no evidence on recovery rates and patient safety.

219 Court of First Instance Antwerp 27 May 1993 (*Rechtbank van eerste aanleg Antwerpen*), *DCCR* 1994, 762. Court of First Instance Liège 12 November 1997 (*Tribunal de première instance Liège*), *JLMB*, 1999, 277.

The thriving in France of sector 2 medical specialists, who can charge supplementary fees, may be due to patients believing that these physicians provide better quality of care (Dormont and Péron, 2016). The idea that an expensive physician must be an excellent physician might play a role. Value might also be attributed to supplementary fees by patients believing that extra payments for physicians motivate them to go the extra mile.

In short, the added value of supplementary fees for the physician is clear: extra revenue. Hospitals may also benefit from supplementary fees for they may receive part of the supplementary fees charged. Patients who are able and willing to pay supplementary fees can buy comfort such as convenient consultation hours late at night or private rooms in hospitals. Since physicians can refuse to treat patients who do not pay supplementary fees, willingness to pay supplementary physicians' fees guarantees a patient's free choice of physician.

Research question 6:
Is a system of supplementary physicians' fees charged on top of social security tariffs sustainable?

In the past, patients had little objective data at their disposal on the quality of health care services provided by an individual physician. Today, such data are being made available. Processing such data can provide objective information on the quality of care provided by an individual physician. As long as there is no transparency on the quality of care provided by physicians, physicians can charge supplementary fees even if the quality of care they provide is substandard. With more transparency being created on the quality of care provided, it is likely that the value of supplementary fees will increasingly be questioned in the future. It can be expected that patients will only be willing to pay supplementary fees for physicians who effectively provide above standard quality of care. But then another problem will arise. If supplementary fees are to be linked to objectively and transparently demonstrated high quality, a problem of equal access to care will arise. Limiting access to top quality care to patients who are able to pay supplementary fees is in contradiction with the principle of equal access to care. Equal access to health care is at the core of equity in health which implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be at a disadvantage in achieving this potential, if it can be avoided (Whitehead, 1992).

A two-tiered system, with better quality care only available to those who are able and willing to pay extra, is considered to be socially unacceptable in many countries. In these

countries, it is unlikely that governments will choose for supplementary fees to be used as an incentive for physicians to provide better quality of care.

Since supplementary fees constitute an important source of revenue for certain medical specialists and physicians are a strong lobby group, a policy gradually restricting supplementary fees might be preferable. Today, both in Belgium and in France, the first steps in limiting supplementary fees have already been set. With the lack of added value for the patient becoming more apparent, this process is likely to continue over the next few years.

A short answer to the research question is: no, the current system of supplementary physicians' fees in Belgium and France is not sustainable. In the short run, cost inflation is putting serious pressure on the viability of the system. In the long run, lack of evidence that physicians charging supplementary fees provide better quality of care is likely to undermine patients' willingness to pay supplementary fees. Patients, like all consumers, want 'quid pro quo'. Moreover, if supplementary fees were to effectively depend on the quality of care provided, a problem of equal access to care would arise since only patients able to pay supplementary fees would have access to top quality physicians.

7.1.3. Access to new health technologies

Research question 7:
Are new health technologies equally accessible for patients in Belgium and the Netherlands?

Contrary to the Netherlands, out-of-pocket payments for new health technology are widely accepted and practiced in Belgium. This difference is largely the result of different regulatory environments. A major difference is the way in which entitlements to care are described: closed and explicit in Belgium versus open and non-explicit in the Netherlands. In Belgium, there is a closed, enumerative list of medical goods and services covered by mandatory basic health insurance. As a consequence, there is transparency about which treatments are not covered. In the Netherlands, there is no such list. Dutch law stipulates that care that meets the criteria of 'current scientific knowledge and practice' is to be covered by mandatory health insurance. However, unless the National Health Care Institute has assessed a certain treatment, insurers and hospitals do not necessarily all have the same approach towards that treatment. This may cause a less transparent situation for the patient in the Netherlands. The existence of in-kind health insurance policies in the Netherlands, as opposed to Belgium, may also help explain differences in access to new health technologies. With in-kind policies, patients' choice is limited to the care contracted by the health insurer.

It is not always clear for the Dutch patient which insurers and which hospitals offer a specific new health technology. In principle, the patient can check the website of the insurer or enquire with the insurer by telephone. Insurers are obliged to give a detailed answer to such questions. However, in practice this possibility is not often used. Recently, concerns have been raised in the press about Dutch hospitals -for financial reasons- not always or not immediately providing the patient with the best treatment available. For example, bevacizumab (Avastin) might not be given to all patients with colon carcinoma because some hospitals prefer not to pay for this expensive treatment.[220]

In Belgian hospitals lists are available for the patient containing well-defined health technologies which need to be paid for out-of-pocket (e.g., certain types of hip implants and intraocular lenses and materials for fracture fixation) (Christian Mutuality, 2017).

Whereas the Belgian approach may do better in terms of 'access to new health technologies' for those who are able and willing to pay, the Dutch approach has a better score for 'equal access to care'. In Belgium, patients have more choice, if they can pay. Of course, the condition is that they are informed about the existence of other treatment options. Based on the Patient Rights Act of 2002, their doctor should inform them about all treatment options, including those that are not covered by mandatory basic health insurance. More research is needed to know to what extent doctors effectively perform this task. For instance, doctors might be inclined to only inform well-off patients who can afford to pay out-of-pocket for an expensive new health technology.

Within the Dutch health system, there is less transparency on the availability of new health technologies. Out-of-pocket payments for new health technologies do not exist in the Netherlands. The comprehensiveness of the statutory benefits package may be part of the explanation. However, since it is impossible for the benefits package to cover all new health technologies, Dutch patients may not have access to certain new technologies. Another element of the Dutch health care system may also negatively affect transparency. Since health insurers and hospitals are free to contract, including on the use of new health technologies, the patient may not know about new technologies being used in one hospital but not in the other.

Contrary to the Netherlands, Belgium has a two-tiered system so far as access to new health technologies is concerned. Access to new health technologies depends on the

220 See Dutch newspaper article (2015): 'Ziekenhuis verbiedt kankerkuur' (translation: Hospital forbids cancer Treatment). *De Telegraaf*, 16 June 2015. Available at http://www.telegraaf.nl/gezondheid/24164283/_Ziekenhuis_verbiedt_kankerkuur_.html.

patient being informed about the new technology and the ability and willingness to pay out-of-pocket. Covering new health technologies that are not (yet) reimbursed by mandatory basic health insurance is one of the reasons for the existence of PHI in Belgium.

In sum, there seems to be a trade-off between equal access to care on the one hand and choice and transparency on the other. In a two-tier health care system, there is no equal access to new health technology. In an egalitarian system, transparency on where and what technology is being used, as well as choice are limited.

Research question 8:
What can be the role of voluntary private health insurance in providing access to new health technology?

Eighty-two per cent of the Belgian population and 84 per cent of the Dutch population has subscribed to PHI (figures for 2015) (Assuralia, 2016; CDZ, 2015; Vektis, 2015). While Belgian PHI mainly offers coverage for inpatient costs, Dutch PHI focuses on outpatient costs such as dental care and physiotherapy. As opposed to Belgium, PHI in the Netherlands does not offer coverage for new health technology which is not (yet) covered by mandatory basic health insurance. In Belgium, the role of PHI in covering new health technology is recognised by the government. The Belgian 'Special Solidarity Fund', which is an integral part of mandatory basic health insurance, explicitly stipulates that patients first have to seek reimbursement for a new technique from PHI before they can file a request with the Fund.[221]

In the Netherlands, expenditure on general hospitals is almost completely covered by mandatory basic health insurance. Out-of-pocket expenditure represents only 0.4 per cent of total expenditure on hospitals. The situation is very different in Belgium, where private expenditure on general hospitals amounts to 20.1 per cent of total expenditure on hospitals. Additional health insurance covers 8.6 per cent of total expenditure on hospitals.[222]

While in the Netherlands it is theoretically possible to charge a supplement for new health technology to patients who have a reimbursement policy, the general perception is that this is not happening in practice. Although the Dutch government is promoting

221 Article 25 septies. §1, 4° Wet betreffende de verplichte verzekering voor geneeskundige verzorging en uitkeringen gecoördineerd op 14 juli 1994 (Health Insurance Act).

222 Source: OECD Health Statistics (figures for 2015). As discussed in chapter 2 of this thesis, the real figure for private expenditure on general hospitals is likely to be substantially lower than the OECD figure mentioned here.

competition on price and quality among health insurers and health insurance policies and although legislation allows them to do so, health insurers are not offering two benefits-in-kind policies A and B whereby for policy A treatment X has been contracted and for -the more expensive- policy B treatment Y, using new health technology, has been contracted.

An analysis of the Belgian and the Dutch approach reveals that a closed explicit system of entitlements to care may create an environment in which patients (and their doctors) are encouraged to look for and to use new health technologies which are not (yet) reimbursed by mandatory basic health insurance. Reimbursement by PHI can facilitate the use of new health technologies, e.g., by providing reimbursement for technologies that are not yet reimbursed by mandatory basic health insurance but that are under review for reimbursement (= 'waiting room function'). Risk-averse individuals may want to protect both their health and their wealth by assuring access to expensive health technology not (yet) covered by mandatory basic health insurance. In all types of health systems, there is an increasingly concerted effort to define an 'essential' package of health care that is covered by mandatory basic health insurance (Jost, 2005). Because of the increasing offer and demand of health technologies and growing budgetary constraints, the comprehensiveness of the statutory benefits package is coming under strain. Smith (2013) has investigated the question of how to choose the benefits package to which all citizens are given free access when objectives include financial protection as well as health improvement. A key concern is the type of private markets available and the nature of patients' responses when a treatment is not covered by such a package. Smith (2013) has modelled three scenarios: no availability of private care; a spot market of private care paid for out-of-pocket; and a market in prepaid complementary private insurance. His conclusion is that governments can secure an optimal system of mandatory health insurance coverage by specifying a benefits package in line with redistributional goals and nurturing a complementary voluntary insurance market.

In short, by covering technologies that are not (yet) reimbursed by mandatory basic health insurance, PHI can play a significant role in providing access to new health technologies. However, due to equity reasons, the statutory benefits package should include essential (new) health technologies.

7.1.4. Regulation of PHI markets

Research question 9:

To what extent do free market rules effectively apply to voluntary private health insurance?

In addition to the general treaty provisions on freedom of establishment (Article 49 of the Treaty on the Functioning of the European Union ('TFEU')[223]) and freedom to provide services (Article 56 TFEU), the EU has adopted specific non-life insurance Directives with the aim of increasing competition in the European insurance market.[224] Recital 19 of the Third Non-Life Insurance Directive[225] states that 'within the framework of an internal market it is in the policyholder's interest that he should have access to the widest possible range of insurance products available in the Community so that he can choose that which is best suited to his needs'.

Article 54 of the Third Non-Life Insurance Directive provides an exception to this rule. A Member State's supervisory authority may impose specific measures in the form of restrictions on insurance contracts in the interest of the 'general good', where contracts covering health risks 'may serve as a partial or complete alternative to health cover provided by the statutory social security system'. Where this is the case, a Member State can require private insurers to 'comply with the specific legal provisions adopted by that Member State to protect the general good in that class of insurance'.[226] A number of legal provisions may be introduced if private cover provides a partial or complete alternative to statutory cover: open enrolment, community rating, lifetime cover, policies standardised in line with the cover provided by the statutory health insurance scheme at a premium rate at or below a prescribed maximum, participation in risk equalisation schemes (referred to as 'loss compensation schemes') and the operation of PHI on a technical basis similar to life insurance.[227] Measures taken to protect the general good must be shown to be necessary and proportional to this aim; not unduly restrict the right of establishment or the freedom to provide services; and apply in an identical manner to all insurers operating within a Member State.

In his letter of 25 November 2008, European Commissioner Bolkestein, responding to a question from the Dutch government on the application of EU regulation to private health insurance, suggested that the Article 54 exception only applies to substitutive health insurance: 'I do not think that it would be proportionate to apply the requirements to any complementary insurance cover offered by private insurers which goes beyond

223 Consolidated version of the Treaty on the Functioning of the European Union, *OJ* C 202, 7 June 2016, pp. 47-200.

224 For an analysis of the relevant EU legal framework, see F. Paolucci, A. Den Exter and W.P.M.M. van de Ven, 'Solidarity in competitive health insurance markets: analysing the relevant EC legal framework', *Health Economics, Policy and Law* 1(2) (2006) 107-126.

225 Council Directive 92/49/EEC of 18 June 1992 on the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance and amending Directives 73/239/EEC and 88/357/EEC, OJ L 228, 11 August 1992, pp. 1-23 ('Third Non-Life Insurance Directive').

226 Article 54(1) and Recital 24 of the Third Non-Life Insurance Directive.

227 Ibid. Article 54(2) and Recital 24.

the basic social security package of cover laid down by the legislation'.[228] Thomson and Mossialos disagree with the assumption that only substitutive private health insurance provides social protection. They argue that where the statutory benefits package is relatively narrow and/or subject to extensive co-payments, it could be considered that individuals do not have adequate protection from the financial risk associated with ill health unless they purchase PHI covering excluded (and effective) services and/or statutory user charges (Thomson and Mossialos, 2010).[229] However, the credibility of this argument depends on the extent to which low-income groups and high-risk groups (e.g., the elderly and chronically ill) effectively have access to such additional cover. Regulation of PHI that is not affordable for these groups cannot be considered to effectively protect the general good.

Under certain conditions, national governments can restrict the application of free market principles to PHI. A restriction on free competition may be justified where it serves overriding requirements relating to the public interest, is suitable for securing the attainment of the objective which it pursues and does not go beyond what is necessary in order to attain it.[230]

Recent European Court of Justice (ECJ) case law has revealed apparent inconsistencies in its approach to the regulation of PHI. In 2013, the ECJ upheld Belgian regulations limiting the operation of the free market by restricting increases in premium rates of PHI contracts.[231] By contrast, in 2012, an ECJ ruling required Slovenia to repeal such restrictive legislation and not to hinder the operation of the free market.[232]

The question is to what extent free market rules effectively apply to PHI in the EU. An important element in the discussion is how the appropriateness of the restrictive measures taken by Member States can be assessed. We discuss a set of criteria developed by the European Commission to test the proportionality of national regulation of PHI. We also discuss the concept of services of general economic interest (SGEIs). When a PHI scheme can be defined as an SGEI, the application of free market rules to that scheme can be restricted.

228 F. Bolkestein, 'Letter from the European Commission to the Dutch Minister of Health, Welfare and Sport', European Commission, 25 November 2003.

229 S. Thomson and E. Mossialos, 'Private health insurance and the internal market', in: E. Mossialos, G. Permanand, R. Baeten and T. Hervey (eds.), *Health Systems Governance in Europe: The Role of EU Law and Policy* (Cambridge: Cambridge University Press, 2010) pp. 419-460.

230 Case C-518/06, *Commission* v. *Italy* [2009] ECR I-3491, para. 72.

231 Case C-577/11, *DKV Belgium SA* v. *Association belge des consommateurs Test-Achats ASBL* ECLI:EU:C:2013:146.

232 Case C-185/11, *Commission* v. *Slovenia* ECLI:EU:C:2012:43.

In the *DKV* case, the European Commission proposed five criteria to assess the proportionality of national regulation relating to PHI:[233] (1) the nature of the PHI at issue (i.e., whether substitutive, duplicative, supplementary or complementary), with national measures being more proportionate in case of substitutive health insurance; (2) the expenditure by PHI as a share of total national health expenditure, with national measures being more proportionate where this share is increasing; (3) the objective of the public interest rationale invoked: granting access to PHI irrespective of age and health status (and thus protecting the weakest in society) or protecting consumers who freely concluded their contract in a competitive market, with national measures being more proportionate where the first objective is aimed at; (4) the existence of a competitive insurance market, which succeeds in creating a wider choice for the consumer and a decrease in premium rates, with national measures being more proportionate in case there is no really competitive insurance market; (5) the existence of other, less restrictive measures.

Given that expenditure financed by PHI as a share of total health expenditure is much larger in Slovenia and the Slovenian PHI market is less competitive than the Belgian market, it is remarkable that the ECJ upheld the Belgian regulatory regime but found the Slovenian regime incompatible with EU law. Article 54 of the Third Non-Life Insurance Directive explicitly allows EU Member States to restrictively regulate PHI that serves as a partial or complete alternative to health cover provided by the statutory social security system. According to this criterion, since PHI in Slovenia mainly covers co-payments (85%) and makes health care more accessible, the proportionality test rather points towards allowing restrictive regulation to be introduced in Slovenia. Since the ECJ apparently accepted regulation of premium rate increases in Belgium but not in Slovenia, it is not clear whether this kind of regulation could be adopted by other EU Member States.

The qualification of a PHI scheme as a service of general economic interest (SGEI) can serve as a justification for national regulation restricting the operation of the free market. SGEIs are commonly defined as economic activities that would not be generated by market forces alone or at least not in the form of an affordable service available to all on a non-discriminatory basis.[234] SGEIs are carried out in the public interest under conditions defined by the State, which imposes a public service obligation on one or

233 Commission Européenne, Observations écrites dans l'affaire C-577/11, Brussels, 28 February 2012 (JUR(2012)250478 CV/tm).

234 J. Almunia, 'Reform of the state aid rules for services of general economic interest (SGEI) and decisions on WestLB, Bank of Ireland and France Telecom', Press conference, Brussels, 20 December 2011. SPEECH/11/901.

more providers.[235] The concept 'service of general economic interest' (SGEI) is mentioned in Article 106(2) TFEU.

A key value of EU Member States' health care systems, which applies to welfare services more generally, is universal access or coverage.[236] To guarantee universal coverage, the national government plays a vital role in regulating market-oriented systems. After all, the health care market is characterised by several instances of market failure, for instance, information asymmetry and risk selection.[237]

When a service is determined to be an SGEI, Member States may enact measures which would otherwise be contrary to the rules of the Treaties, notably the competition rules. Member States retain a wide discretion to define SGEIs, i.e., to use the concept of an SGEI as a tool to intervene in the market. This discretion is subject only to a test for manifest error of assessment.[238]

The closest attempt at clarifying the 'manifest error of assessment' test was made in *BUPA* where the ECJ noted that the minimum criteria all SGEIs must fulfil are the presence of an act of the public authority entrusting the operators in question with an SGEI mission and the universal and compulsory nature of that mission.[239]

In the *BUPA* case, the ECJ concluded Irish PHI to be an SGEI.

Unlike the Belgian public interest argument -consumer protection- Slovenia's public interest argument that Slovenian PHI ought to be considered as a part of the social security system was rejected by the ECJ.

A short answer to the research question is that recent ECJ case law has revealed apparent inconsistencies its approach to the regulation of PHI. Therefore, it is not clear to what extent EU free market rules apply to complementary PHI.

235 European Commission, 2011, *State aid: Commission adopts new package on state aid rules for services of general economic interest (SGEI) — frequently asked questions*, available at http://europa.eu/rapid/press-release_MEMO-11-929_en.htm.

236 U. Neergaard, 'Services of general economic interest: the nature of the beast', in: M. Krajewski, U. Neergaard and J.W. van de Gronden (eds.), *The Changing Legal Framework for Services of General Interest in Europe — between Competition and Solidarity* (The Hague: Asser Press, 2009) pp. 17-50.

237 S. Lavrijssen and S. de Vries, 'Chapter 19, Netherlands', in: Krajewski et al. (eds.), *ibid.*, pp. 383-422.

238 G.S. Ølykke and P. Møllgaard, 'What is a service of general economic interest?', *European Journal of Law and Economics* 41(1) (2016) 205-241.

239 Case T-289/03, *BUPA and others* v. *Commission* ECLI:EU:T:2008:29, para. 172.

Research question 10:
What is the future role of voluntary private health insurance within the framework of social health insurance systems in the European Union?

Equal access to health care is at the core of equity in health which implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided (Whitehead, 1992).

Equity of access to health care services can be improved by defining essential health care services (Söderlund, 1998). Essential health care services should be made accessible to everyone within the health care system. The Committee on Choices in Health Care, the so-called Dunning Committee, established in 1990 in the Netherlands, has developed a set of four principles, to be applied successively, in order to delineate essential from non-essential health care services: necessity, effectiveness, efficiency, and individual responsibility. The principle of necessity is defined very broadly, basically meaning any treatment that is necessary to maintain or restore health, or to relieve suffering (van de Ven, 1995). With regard to the principle of effectiveness, only interventions where there is evidence for an effect are covered. The services to be covered are further narrowed down by those that give value for money, by only funding efficient services. Finally, services that are best dealt with by the individuals themselves are excluded (i.e., services that can easily be paid for by the individuals themselves) (Sabik and Lie, 2008).

More recently, the 2010 U.S. Affordable Care Act (ACA) stipulates that a broad package of 'essential health benefits' (EHBs) equivalent to that of a 'typical employer plan' be offered by qualified health plans participating in newly created state-based insurance exchanges, as well as by new plans offered to individuals and small employers outside these exchanges. U.S. Congress directed the Department of Health and Human Services (DHHS) to flesh out the details. The DHHS, in turn, asked the Institute of Medicine (IOM) to recommend a process for defining and updating the EHB package (Iglehart, 2011). The ACA states that EHB packages must include at least 10 broad benefit categories: ambulatory patient services; emergency services; hospitalisation; maternity and newborn care; mental health and substance abuse disorder services, including behavioural health treatment; prescription drugs; rehabilitative and habilitative services and devices; laboratory services; preventive and wellness services and chronic disease management; and pediatric services, including oral and vision care. The IOM advanced the following criteria to define medically necessary services: 'medical services that are (1) clinically appropriate for the individual patient, (2) based on the best scientific evidence, taking into account the available hierarchy of medical evidence, and (3) likely to produce

incremental health benefits relative to the next best alternative that justify any added cost' (Institute of Medicine, 2011). DHHS regulation stipulates that the mandatory EHB package needs to be defined at a state level. As a result, there are quite significant differences in EHB packages between states. For instance, essential health benefits in Alabama are quite different from those in New Hampshire.[240] Reproductive health and obesity surgery may be included in the EHB package in one state but not in another. The issue of reproductive health illustrates political discussions playing an important role in determining EHBs. Obesity surgery is a good example of the normative discussion on what constitutes a disease and what does not.

A 2008 WHO report enumerates five goals for defining EHB packages: priority setting on the grounds of effectiveness and relative costs, poverty reduction, equity, political empowerment and accountability, and improving service delivery (World Health Organisation, 2008). The report stresses that implementing an EHB package is not just a technical exercise. Political and institutional processes need to be engaged, because successful implementation involves dialogue on purpose and design; decisions on financing and delivery arrangements, and adaptation over time.

Coming back to the discussion on the regulation of PHI, the following question can be asked: If PHI really is so important that restrictive regulation is needed, would it not be better to integrate PHI within the social security system? The poor, the sick and the old who cannot afford PHI are not protected by government-designed consumer protection rules regarding the PHI market. As a consequence, regulation of PHI protects only well-off (or better-off) customers who can afford to buy PHI. When PHI covers essential health care, a more equitable result might be reached by integrating that care into the social security system rather than by developing restrictive regulation protecting only the well-off part of the population who can afford PHI.

New health technologies are often reimbursed by PHI. From an equity point of view -if essential health care services are concerned- new health technologies should be integrated in basic health insurance rather than protecting only those customers who can afford additional cover.

PHI also provides financial protection from co-payments. Traditionally, co-payments were introduced to reduce moral hazard. Co-payments are meant to prevent people from seeking medical care that may not be necessary. Apart from their traditional role,

240 The EHB packages per state are available at: https://www.cms.gov/cciio/resources/data-resources/ehb.html

co-payments also allow the public sector to shift costs on to households. In countries where PHI covers co-payments, the scope of statutory coverage might erode over time and there are concerns about the fact that those who do not have PHI may face financial and other barriers to accessing health care (Thomson and Mossialos, 2009).

If there is insufficient public funding to reduce co-payments and to integrate (new) health technologies within the mandatory basic health insurance system, basic health insurance could be extended with private funding. Low income groups, who cannot afford private funding, could be subsidised. The French government has chosen this option. In 2014, 7.4 per cent of those covered by PHI benefited from a public programme providing free coverage to the poorest ('complementary universal health coverage', '*couverture maladie universelle complémentaire*' (CMU-C)) (Franc and Pierre, 2015). Individuals with an income above the CMU-C ceiling can get a voucher to partially fund the premium for a PHI contract ('*aide complémentaire santé*').

In summary, if all essential health care were to be covered by an affordable mandatory basic health insurance scheme, there would be no need to develop restrictive regulation for the PHI market (see also Pauly, 1991). Customers taking out PHI would no more need special government protection than customers taking out home or car insurance.

7.1.5. Optimal design of PHI products

Research question 11:
How can the gap between the current offer of dental insurance products and an optimal design for complementary dental insurance be explained?

In Belgium, France, Germany and the Netherlands, the current offer of complementary dental insurance (CDI) is not optimal. After reimbursement of dental costs by MBI and CDI, out-of-pocket expenditure on dental care remains at a fairly high level (e.g., 45% in Belgium). The design of CDI products does not respond to the criteria of optimal insurance because the majority of products on the market do not protect against high financial risk, nor do they give access to otherwise unaffordable dental care. Moreover, moral hazard and adverse selection are insufficiently counteracted. The gap with optimal insurance design can be explained by both supply-side aspects and demand-side aspects. For reasons of public policy, insurers are reluctant to offer optimal CDI and behavioural economic aspects such as liquidity constraints, debt aversion and ignorance can explain why consumers are willing to buy suboptimal CDI. Public policy would like voluntary CDI products to provide both optimal insurance coverage and equal access to insurance. However, this is not possible because optimal insurance requires selective

underwriting and risk rating (to counteract adverse selection[241]), which is inconsistent with equal access. In Belgium, France and the Netherlands, guaranteeing equal access seems to be more important than providing optimal coverage.

Research question 12:
How can current complementary dental insurance design be improved?

The following strategies to optimise CDI can be derived from the potential explanations for the current existence of suboptimal CDI. First, policymakers should carefully decide which dental care is essential and ought to be covered by MBI. Dental care which is considered non-essential by policymakers and which is therefore not covered by MBI should be subject to private insurance logic. If, because of budgetary constraints, essential dental care cannot be covered by MBI, subsidisation of private insurance for low-income people might be an alternative to full public provision.

Second, moral hazard could be counteracted by the systematic use of deductibles and co-insurance. Standard lists of usual market prices could be compiled and provider networks adhering to a price list could be created. Insurers should not shy away from legal action in case of excessive amounts being claimed.

Third, selective underwriting and risk rating could be used to counteract adverse selection and to protect existing clients against free riders who abuse the insurance system. Providing insurance for pre-existing conditions is incompatible with the insurance principle that only future, unforeseen risks can be covered. A burning house cannot be insured.

Fourth, applying waiting times for expensive treatments such as prosthetics and providing only limited coverage during the initial years of the contract constitute alternatives for a general limitation of coverage.

Fifth, behavioural economics aspects such as liquidity constraints and debt aversion could be dealt with by offering a combination of optimal dental insurance in combination with a health (dental) savings account. Ignorance and social comparison can be

241 Unlike mandatory health insurance, voluntary CDI is prone to adverse selection. Individuals who expect high health care costs differentially prefer more generous and expensive insurance plans; those who expect low costs choose more moderate plans. This phenomenon, called adverse selection, is a major concern in health insurance markets. Adverse selection can lead to three classes of inefficiencies: prices to participants do not reflect marginal costs, hence on a benefit-cost basis individuals select the wrong health plans; desirable risk spreading is lost; and health plans manipulate their offerings to deter the sick and attract the healthy (Cutler and Zeckhauser, 1998).

taken care of by improving the transparency of CDI products. Consumer organisations can play an important role in clarifying the market offer for the consumer.

7.2. DISCUSSION

In this thesis, we have discussed several issues relating to private expenditure on health and voluntary private health insurance (PHI). The two themes are closely related since expenditure covered by PHI is a part of private expenditure on health. The other part is out-of-pocket expenditure on health.

In the European Union (EU), private expenditure represents 21 per cent of total expenditure on health (2015). PHI covers only one-quarter of private expenditure on health. With 15 per cent of total health spending, out-of-pocket expenditure is quite substantial in the EU. In the United States, for instance, out-of-pocket represents 12 per cent of total health spending.

PHI converts out-of-pocket health spending into spending covered by insurance. In this discussion, we will focus on this conversion.

Health insurance has two important advantages for the consumer, but also two disadvantages (see Table 4 below). On the one hand, health insurance reduces the financial risk for the insured and provides access to health care that would otherwise be unaffordable (Nyman, 1999). People wish to reduce the impact of unexpected shocks to their levels of overall consumption (Pauly, 2007). On the other hand, insurance increases costs. This is due to loading -the administrative and other expenses of the insurer- and moral hazard. Moral hazard refers to adverse behaviours encouraged by the guarantee of financial protection against losses caused by the occurrence of adverse events (Gruber, 2005). Insurance reduces the marginal cost of health care services borne by the individual which may result in excessive consumption of these services ('consumer-initiated moral hazard'). Providers may also be inclined to induce additional demand for services for which they know that the costs are covered by insurance ('supplier-induced moral hazard') (Pauly, 1968; Feldstein, 1970; Feldman and Dowd, 1991; Paolucci, 2011).

Table 4. Advantages and disadvantages of health insurance

Advantages	Disadvantages
Reduction of financial risk for the insured	Loading costs
Access to health care that would otherwise be unaffordable	Moral hazard

Consumption of health goods and services that are not covered by mandatory basic health insurance or for which substantial cost-sharing arrangements apply may increase financial risk. Access to these goods and services may prove difficult or impossible because of financial reasons. PHI can reduce financial risk and guarantee access to health care.

However, loading costs of PHI are significant. In France, loading costs of PHI are 15 per cent for non-profit provident associations, 19 per cent for non-profit mutual associations and 23 per cent for commercial for-profit insurance companies.[242] Loading costs of mandatory basic health insurance are lower because of economies of scale and because there are no acquisition costs.

Moral hazard is a particularly important issue as far as health insurance is concerned. Because insurance reduces the user price of health care and because the premium a person pays is usually independent of that person's use, the person responds to the lower out-of-pocket price by demanding more medical care and possibly more expensive types of medical care. Insurance that makes all care free of out-of-pocket payment leads to nearly 50 percent greater spending than wealth-related catastrophic coverage with deductibles, with very modest improvements in health outcomes (Pauly, 2007).

PHI can be worthwhile if the advantages outweigh the disadvantages.

Loading costs can be reduced by automating administrative and sales processes. Thanks to digitalisation and artificial intelligence, the loading costs of Sygeforsikringen, a non-profit Danish private health insurer with two million clients, are under 8 per cent.

Viability of PHI can be improved by effectively counteracting moral hazard and adverse selection. Cost-sharing arrangements, such as deductibles, co-payments (fixed sum) and co-insurance (percentage), can be used and costs can be reduced through negotiations with health care providers. In countries such as Belgium, France and the Netherlands, most private dental insurance products offer only limited benefits because insurers have insufficiently invested in measures to counteract moral hazard and adverse selection.

The crucial question is: which private health costs should PHI cover?

242 Acquisition costs, which represent a significant part of loading costs, are 5, 6 and 13 per cent for provident associations, mutual associations and insurance companies respectively (DREES, 2015). Loading costs of mandatory basic health insurance are only 5 per cent.

Trivial risks lead to losses that can be borne by the insured without any noticeable burden. Coverage of trivial risks does not contribute to 'the reduction of financial risk for the insured'. However, insurance against trivial risks has proven successful, e.g., a dental insurance product on offer in the Netherlands, with a coverage limit of 250 EUR per year only. This success can be explained by behavioural economics (e.g., debt aversion).

Reimbursement by PHI of cost-sharing arrangements included in mandatory basic health insurance schemes is a tricky issue. The question is: what role does cost-sharing play? To counteract moral hazard or to shift health costs from public to private sources of funding? **PHI providing coverage for cost-sharing arrangements imposed by mandatory basic health insurance can have an inflationary effect on public health spending** by eroding the 'slowing down' effect of deductibles, co-payments and co-insurance on the use of health goods and services. Until 2002, Belgian law[243] forbade coverage of cost-sharing arrangements by PHI. However, this legal provision was never enforced and in 2002 it was removed from the law altogether.

The relationship between PHI and the supplementary fee system in Belgium and France can also be called into question. People subscribing PHI may be less price-sensitive. Knowing that a patient is additionally insured may lead health care providers to charge higher fees. As a result, **PHI can have an inflationary effect on supplementary fees**. This inflationary effect could be counteracted by engineering effective cost-sharing arrangements for the reimbursement of supplementary fees.

In Belgian hospitals, supplementary fees are allowed in single rooms only. The link between supplementary fees and single rooms has a negative effect on the level of comfort in Belgian hospitals. In the rest of the economy, single rooms have long since become the standard. We cannot imagine a hotel receptionist telling us we will need to spend the night sharing our room with X, Y or Z in the bed next to us. In current times, with privacy being increasingly prized, **it would be better to cut the link between single rooms and supplementary fees and offer a single room to every patient**.

Providing access to (new) health technologies, not (yet) reimbursed by mandatory basic health insurance is an important role to be played by PHI. According to Thomson and Mossialos (2009), this role is more significant than giving subscribers greater choice of provider and enabling them to bypass waiting lists for publicly-financed treatment. PHI covering new health technologies is a good thing, provided governments do

243 Art. 37, §18 Wet betreffende de verplichte verzekering voor geneeskundige verzorging en uitkeringen gecoördineerd op 14 juli 1994 (Belgian Health Insurance Law).

not use the existence of PHI to shift costs from public to private sources of funding. PHI creates solidarity amongst subscribers. This is better than a situation without PHI, where access to expensive new health technologies is limited to 'the happy few' (= the rich). If the whole population ought to have access, any new health technology should be readily reimbursed by mandatory basic health insurance. However, this may not be feasible, because of budgetary constraints. **An alternative and less costly solution could be for governments to subsidise PHI in order to provide access to new health technologies for people with low-income.** In France, for instance, government subsidises people with low-income to buy PHI.

Reimbursement of new health technologies by PHI often is followed by reimbursement by mandatory basic health insurance. Reimbursement by PHI is used as an argument by health technology companies and health care providers, when lobbying for reimbursement by mandatory basic health insurance. Therefore, coverage of new health technologies by PHI should be the result of careful consideration. Evidence-based medicine should be the guiding principle. **Reimbursement by PHI can give an aura of respectability to therapies that are not evidence-based.** This is for instance the case for alternative medicine (e.g., homeopathy), which is sometimes reimbursed by PHI.

Creating transparency on the availability of new health technology is an important issue. **Patients have the right to know that new technology is on the market, even when their physicians assume that their patients cannot afford to pay for the new technology out-of-pocket.** The decision whether or not to pay for new health technology ought to lie with the patient. After all, the patient may have access to funding sources (e.g., through friends, family or crowdfunding) that the physician is not aware of. The patient can also decide to forgo other consumption, in order to be able to finance new health technology.

Weisbrod (1991) has shown how the expansion of health insurance has contributed to financing the development of new health technologies, and how new technologies have expanded demand for insurance. **In times when budgets of mandatory basic health insurance tend to be tight, PHI could provide additional funding for new health technologies.** In this way, PHI could contribute to the further evolution of health technology.

In 2006, the Dutch government decided to exclude dental care and physiotherapy from the basic package. Only elective treatments are covered by mandatory basic health insurance (e.g., dental care for children under age 18 and physiotherapy for critical illnesses). Dutch patients can buy voluntary private health insurance products for dental care and

physiotherapy. In many countries, reimbursement of dental care and physiotherapy by mandatory basic health insurance is quite limited. Excluding them from the basic package can free up money; money that could be used, for instance, for more extensive reimbursement by mandatory basic health insurance of new, expensive cancer treatments. **By providing coverage for so-called less essential health care services, PHI could help governments to free up money for new, expensive, health technologies.**

Giving a greater choice of provider and providing access to a preferred provider are also roles which can be played by PHI. Supplementary fees can buy access to a preferred physician (e.g., a physician working in a private hospital -'*clinique privée*'- in France and a senior resident -'*Chefarzt*'- in Germany). However, as discussed in chapter 3, the current supplementary fee system is not sustainable. There is cost inflation of supplementary fees and -most importantly- the added value for the patient is not clear. Patients should get extra value for the extra money paid. Today, there is little transparency as to the quality of care provided by a physician charging supplementary fees. If such transparency were to be created, the current supplementary fee system might no longer be acceptable since everyone -not only those able to pay supplementary fees- would want to have access to physicians providing -objectively proven- better quality of care. **A system could be conceived where -instead of charging supplementary fees on top of social security tariffs- physicians are free to set their fees but without reimbursement by mandatory basic health insurance.** Such a system exists in France, where about 1,000 physicians -sector 3 physicians- are not reimbursed by mandatory basic health insurance. They need to prove that they are worth the (extra) money. If such a system exists, it is important -for equity reasons- for basic mandatory health insurance to provide comprehensive coverage and a good quality of care. The advantage of such system is that physicians would need to make a clear choice: either they choose to work within the social security system (and fully respect social security tariffs), or they choose to work outside of the social security system (and are at liberty to set their fees). The disadvantage is that physicians choosing to opt out of the social security system would no longer be accessible for people with low incomes. Eventually, this might lead to top physicians only being accessible for the wealthy. However, this risk is also inherent in the current systems of supplementary fees.

Currently, PHI represents only 5 per cent of total health spending and one quarter of private health spending in the EU. High out-of-pocket spending is at odds with equal access to health care. Therefore, in the absence of coverage by mandatory basic health insurance, converting out-of-pocket spending into spending covered by PHI is a step forward. However, **PHI is a step forward only then when the advantages of insurance outweigh the disadvantages**. Insurance coverage is not needed for every euro

of out-of-pocket spending. Providing insurance for trivial risks and for cost-sharing arrangements may prove counterproductive. Coverage of non-evidence-based medicine can even be dangerous. Fostering competition and applying private insurance logic could lead to a decrease in loading costs and a reduction of moral hazard, which -in the end- might prove beneficial to the consumer.

In the ideal world, all essential health care should be covered by mandatory basic health insurance. In the real world, mandatory basic health insurance can be supplemented by voluntary private health insurance.

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8. Summary

Private expenditure on health and voluntary private health insurance

In this thesis, several issues relating to private expenditure on health and voluntary private health insurance (PHI) are being discussed. The two themes are closely linked since expenditure covered by PHI is a part of private expenditure on health. The other part is out-of-pocket expenditure on health.

In the European Union (EU), private expenditure represents -on average- 21 per cent of total expenditure on health. Three quarters of private expenditure on health is financed out-of-pocket.[244] PHI finances only 5 per cent of total health spending in the EU.

We have examined the reliability of OECD Health Statistics as far as private expenditure on health is concerned. OECD Health Statistics are a well-known source for detailed information on health expenditure for policymakers. Official estimates of private expenditure for Belgium for the year 2010 (as published in the OECD Health Statistics) have been shown not to be reliable. We have distinguished four major obstacles for estimating private health spending: interpretation of definitions, formulation of assumptions, missing or incomplete data and incorrect data. Using alternative sources of billing information, we have reached more accurate estimates of private and out-of-pocket expenditure. For Belgium, we have found differences of more than 100% between our estimates and the official Belgian estimates of private health expenditure. For instance, according to OECD Health Statistics private expenditure on hospitals in Belgium amounts to 3.1 billion EUR, while according to our alternative calculations these expenses represent only 1.1 billion EUR. Total private expenditure differs only 1 per cent, but this is a mere coincidence.

Out-of-pocket expenditure on health may negatively affect access to health care. Especially people on low incomes and in poor health are at risk. They may postpone or forgo necessary treatment because they are not able to pay the bill. In this study, we have focused on two issues relating to out-of-pocket expenditure on health: (1) extra payments guaranteeing free choice of provider (supplementary fees) and (2) extra payments guaranteeing access to new health technology.

A supplementary fee is a fee charged on top of the tariff set by the mandatory basic health insurance scheme.

244 Surprisingly, out-of-pocket expenditure in the EU is higher than in the United States, where out-of-pocket represents 12 per cent of total expenditure on health.

In Belgium and France, access to certain physicians is only possible for patients able and willing to pay supplementary fees. In 2012, total supplementary physicians' fees amounted to 781 million EUR and 2644 million EUR in Belgium and France respectively.

In both countries, the supplementary fee system is under pressure because of financial sustainability concerns and a lack of added value for the patient. Expenditure on supplementary fees is increasing much faster than total health expenditure. So far, measures taken to curb this trend have not been successful. For certain categories of physicians, supplementary fees represent one third of total income. For patients, however, the added value of supplementary fees is not that clear. Supplementary fees can buy comfort (e.g., convenient consultation hours) and access to physicians who refuse to treat patients who are not willing to pay supplementary fees. Perceived quality of care plays an important role in patients' willingness to pay supplementary fees. Today, there is no evidence that physicians who charge supplementary fees provide better quality of care than physicians who do not. However, linking supplementary fees to objectively proven quality of care and limiting access to top quality care to patients able and willing to pay supplementary fees might not be socially acceptable in many countries.

(New) health technology -health goods and services- which is not (yet) reimbursed by health insurance is accessible only for patients able and willing to pay out-of-pocket.

New health technology comes on the market at a rapid pace and -sometimes- at a huge cost. Providing access to new health technology is a serious challenge for many countries with mandatory basic health insurance. Access to new health technology in Belgium and the Netherlands is analysed, using eight concrete examples as a starting point for comparing the two -neighbouring- countries. Contrary to the Netherlands, out-of-pocket payments for new health technology are widely accepted and practiced in Belgium. This difference is largely the result of different regulatory environments. A major difference is the way that entitlements to care are described: closed and explicit in Belgium versus open and non-explicit in the Netherlands. The characteristics of in-kind policies versus reimbursement policies also play a role. Allowing out-of-pocket payments for new health technology has consequences for the patients. It leads to greater access to new health technology for those who are able and willing to pay, but has a negative effect on equal access to care. Choice and transparency are enhanced by allowing out-of-pocket payments for new health technology. It can be argued that lack of coverage by mandatory health insurance should not render private access to new health technology impossible.

In the EU, households are confronted with substantial private expenditure, representing -on average- 21 per cent of total expenditure on health. Voluntary private health insurance (PHI) can reduce the financial risk related to private health spending. In this thesis, two issues relating to PHI have been addressed: regulation of PHI markets and optimal design of PHI products.

Unlike mandatory basic health insurance, PHI is applying risk-based premiums. In some EU countries (i.e., Belgium and Slovenia) government has taken initiative to regulate PHI premiums, which is contrary to free market principles.

Recent European Court of Justice (ECJ) case law has highlighted apparent inconsistencies in ECJ rulings on the regulation of PHI. In 2013, the ECJ upheld Belgian regulations limiting the operation of the free market by restricting increases in premium rates of PHI contracts. By contrast, in 2012, an ECJ ruling required Slovenia to repeal such restrictive legislation and not to hinder the operation of the free market. The objective of this thesis is to feed the discussion on the question whether and under what conditions free-market-driven PHI in the European Union might be acceptable. We conclude that, provided that basic health insurance effectively covers all essential healthcare (essential healthcare services being broadly defined), PHI could be regulated in the same way as all other non-life insurance.

Since private expenditure on dental care is quite substantial in most EU countries, we have chosen to focus on complementary dental insurance (CDI) for examining in how far the current offer of PHI products responds to the features of optimal health insurance design.

In Europe, private expenditure represents, on average, 70% of total expenditure on dental care. Complementary dental insurance (CDI) provides coverage for a part of these private dental costs. However, most CDI products currently on the market in Belgium, France, Germany and the Netherlands do not meet the criteria for optimal insurance. An optimal dental insurance policy involves a deductible, a co-insurance of losses above the deductible, protects the consumer against large financial risks and gives access to otherwise unavailable dental treatment (e.g., implants and crowns). The gap with optimal insurance design can be explained by supply-side aspects (the limits of insurability) and demand-side aspects (behavioural economics). Policymakers should carefully decide which dental care is essential and ought to be covered by mandatory basic health insurance. Dental care which is not essential and not covered by mandatory basic health insurance should be subject to private insurance logic. If, because of budgetary constraints, essential dental care cannot be covered by mandatory basic health insur-

ance, subsidisation of private insurance for individuals with low incomes might be an alternative to full public provision. We conclude with a discussion on possible strategies to improve the design of dental insurance.

In the EU, PHI represents only 5 per cent of total health spending and one quarter of private health spending. High out-of-pocket spending is at odds with equal access to health care. Therefore, in the absence of coverage by mandatory basic health insurance, converting out-of-pocket spending into spending covered by PHI, is a step forward. However, PHI is a step forward only then when the advantages of insurance outweigh the disadvantages. Insurance coverage is not needed for every euro of out-of-pocket spending. Providing insurance for trivial risks and for cost-sharing arrangements may prove counterproductive. Coverage of non-evidence-based medicine can even be dangerous. Fostering competition and applying private insurance logic could lead to a decrease in loading costs and a reduction of moral hazard, which -in the end- might prove beneficial to the consumer.

In the ideal world, all essential health care should be covered by mandatory basic health insurance. In the real world, mandatory basic health insurance can be supplemented by voluntary private health insurance.

9. Samenvatting

Private uitgaven voor gezondheidszorg en vrijwillige private ziektekostenverzekering

In deze thesis worden verschillende onderwerpen besproken met betrekking tot de private uitgaven voor gezondheidszorg en de vrijwillige private ziektekostenverzekering. Deze twee thema's zijn nauw met elkaar verbonden aangezien de uitgaven die zijn gedekt door de private ziektekostenverzekering een onderdeel vormen van de private uitgaven voor gezondheidszorg.

In de Europese Unie (EU) vormen private uitgaven gemiddeld 21 procent van de totale uitgaven voor gezondheidszorg. Drie kwart van de private uitgaven voor gezondheidszorg wordt 'out-of-pocket' gefinancierd.[245] De private ziektekostenverzekering staat in voor slechts 5 procent van alle gezondheidsuitgaven in de EU.

We hebben de betrouwbaarheid van de 'OECD Health Statistics' onderzocht wat betreft de private uitgaven voor gezondheidszorg. De 'OECD Health Statistics' verschaffen beleidsmakers gedetailleerde informatie over de gezondheidsuitgaven. We hebben aangetoond dat de officiële cijfers voor de private uitgaven voor België voor het jaar 2010, gepubliceerd in de 'OECD Health Statistics', niet betrouwbaar zijn. Er zijn vier hinderpalen voor het correct inschatten van de private gezondheidsuitgaven: de interpretatie van definities, de formulering van hypothesen, ontbrekende of onvolledige informatie en onjuiste informatie. Door gebruik te maken van alternatieve informatiebronnen zijn we gekomen tot meer accurate schattingen van de private en 'out-of-pocket' uitgaven. We hebben verschillen van meer dan 100 procent vastgesteld tussen onze schattingen en de officiële Belgische schattingen van de private gezondheidsuitgaven. Bijvoorbeeld, volgens de 'OECD Health Statistics' bedragen de private uitgaven voor ziekenhuizen in België 3,1 miljard EUR, terwijl deze uitgaven volgens onze alternatieve berekeningen slechts 1,1 miljard EUR bedragen. De totale private uitgaven verschillen slechts 1 procent, maar dit is louter toeval.

'Out-of-pocket' uitgaven kunnen een negatief effect hebben op de toegankelijkheid van de gezondheidszorg. Vooral mensen met een laag inkomen en een slechte gezondheid lopen een risico. Zij kunnen noodzakelijke zorg uitstellen of ervan afzien omdat ze niet in staat zijn om de factuur te betalen. In het kader van deze thesis hebben we ons geconcentreerd op twee onderwerpen met betrekking tot 'out-of-pocket' uitgaven voor gezondheidszorg: (1) extra betalingen die de vrije keuze van zorgverstrekker

245 Verrassende vaststelling is dat de 'out-of-pocket' uitgaven in de EU hoger liggen dan in de Verenigde Staten, waar de 'out-of-pocket' uitgaven 12 procent van de totale uitgaven voor gezondheidszorg uitmaken.

waarborgen (ereloonsupplementen) en (2) extra betalingen die de toegang tot nieuwe gezondheidstechnologie waarborgen.

Een ereloonsupplement is een extra ereloon dat wordt aangerekend bovenop het ereloon dat is vastgesteld door de verplichte ziektekostenverzekering.

In België en Frankrijk is de toegang tot bepaalde artsen alleen mogelijk voor patiënten die in staat zijn en bereid zijn om ereloonsupplementen te betalen. In 2012 bedroegen de ereloonsupplementen in totaal 781 miljoen EUR in België en 2.644 miljoen EUR in Frankrijk.

In beide landen staat het systeem van ereloonsupplementen onder druk wegens bezorgdheid over de financiële houdbaarheid en een gebrek aan toegevoegde waarde voor de patiënt. De uitgaven voor ereloonsupplementen stijgen veel sneller dan de totale gezondheidsuitgaven. Tot dusver zijn maatregelen om deze trend om te buigen niet succesvol gebleken. Voor bepaalde categorieën van artsen vertegenwoordigen de ereloonsupplementen één derde van hun totale inkomen. Voor patiënten echter, is de toegevoegde waarde van ereloonsupplementen niet zo duidelijk. Door ereloonsupplementen te betalen, kan de patiënt zijn comfort verhogen (bijvoorbeeld, raadplegingen 's avonds laat) en heeft hij toegang tot artsen die weigeren om patiënten te behandelen die geen ereloonsupplementen betalen. De gepercipieerde kwaliteit van zorg speelt een belangrijke rol in de bereidheid van patiënten om ereloonsupplementen te betalen. Maar het is niet duidelijk of artsen die ereloonsupplementen aanrekenen ook betere kwaliteit van zorg leveren dan artsen die dit niet doen. Het koppelen van ereloonsupplementen aan objectief bewezen kwaliteit van zorg en het beperken van toegang tot topzorg tot patiënten die ereloonsupplementen kunnen en willen betalen, zou weleens op een grote weerstand kunnen stuiten in veel landen.

(Nieuwe) gezondheidstechnologie -goederen en diensten- die (nog) niet wordt terugbetaald door de ziektekostenverzekering is alleen toegankelijk voor patiënten die in staat en bereid zijn om 'out-of-pocket' te betalen.

Nieuwe gezondheidstechnologie komt in hoog tempo op de markt en -soms- tegen hoge kosten. Toegang verschaffen tot nieuwe gezondheidstechnologie is een grote uitdaging voor veel landen met een verplichte ziektekostenverzekering. We hebben de toegang tot nieuwe gezondheidstechnologie in België en Nederland onderzocht, waarbij we zijn uitgegaan van acht concrete voorbeelden om beide landen met elkaar te vergelijken. In tegenstelling tot Nederland zijn 'out-of-pocket' betalingen voor nieuwe gezondheidstechnologie een wijdverspreide en aanvaarde praktijk in België.

Het verschil is hoofdzakelijk te wijten aan uiteenlopende regelgevingen. Een belangrijk onderscheid is de manier waarop aanspraken op zorg zijn gedefinieerd: gesloten en expliciet in België versus open en niet expliciet in Nederland. Het verschil tussen naturapolissen en restitutiepolissen speelt ook een rol. Het toelaten van 'out-of-pocket' betalingen voor nieuwe gezondheidstechnologie heeft gevolgen voor de patiënt. Het leidt tot een grotere toegankelijkheid van nieuwe technologie voor hen die het kunnen en willen betalen, maar heeft een negatief effect op gelijke toegang tot zorg. Vrije keuze en transparantie worden bevorderd door 'out-of-pocket' betalingen voor nieuwe technologie toe te laten. De stelling kan worden verdedigd dat een gebrek aan dekking door de verplichte ziektekostenverzekering private toegang tot nieuwe gezondheidstechnologie niet onmogelijk mag maken.

In de EU worden huishoudens geconfronteerd met belangrijke private uitgaven die -gemiddeld- 21 procent van de totale uitgaven voor gezondheidszorg vertegenwoordigen. Vrijwillige private ziektekostenverzekeringen (PZKV) kunnen het financieel risico verbonden aan private gezondheidsuitgaven verminderen. In het kader van deze thesis worden twee onderwerpen met betrekking tot PZKV behandeld: de regulering van PZKV markten en het optimale design van PZKV producten.

In tegenstelling tot de verplichte ziektekostenverzekering, hanteert de PZKV op risico gebaseerde premies. In bepaalde EU-lidstaten (bijvoorbeeld in België en Slovenië) heeft de overheid het initiatief genomen om de premies van PZKV te reguleren, wat in tegenspraak is met de vrije markt principes.

Recente rechtspraak van het Europese Hof van Justitie (HvJ) heeft klaarblijkelijke tegenstrijdigheden in de uitspraken van het HvJ over de regulering van PZKV aan het licht gebracht. In 2013 handhaafde het HvJ Belgische regelgeving die premieverhogingen voor PZKV-contracten inperkt en daardoor de werking van de vrije markt beperkt. In 2012 daarentegen, werd Slovenië door een uitspraak van het HvJ verplicht gelijkaardige regelgeving in te trekken en de werking van de vrije markt niet te belemmeren. Deze thesis beoogt om de discussie aan te zwengelen over de vraag of en onder welke voorwaarden vrije markt gedreven PZKV in de EU aanvaardbaar zijn. We concluderen dat -op voorwaarde dat de basisverzekering alle essentiële zorg dekt (waarbij essentiële zorg breed wordt gedefinieerd)- PZKV op dezelfde manier kan worden gereguleerd als alle andere 'non-life' verzekeringstakken.

Aangezien de private uitgaven voor tandzorg significant zijn in de meeste EU-lidstaten, hebben we ervoor gekozen om ons te concentreren op aanvullende tandzorgverzekerin-

gen om na te gaan in welke mate het huidig aanbod van PZKV-producten beantwoordt aan de kenmerken van een optimaal design van ziektekostenverzekering.

In Europa vormen de private uitgaven -gemiddeld- 70 procent van de totale uitgaven voor tandzorg. Aanvullende tandzorgverzekeringen bieden dekking voor een deel van die private tandzorgkosten. Echter, de meeste aanvullende tandzorgverzekeringen die momenteel op de markt zijn in België, Frankrijk, Duitsland en Nederland voldoen niet aan de criteria van een optimale verzekering. Een optimale verzekeringspolis omvat een eigen risico ('franchise'; 'remgeld'), beschermt de consument tegen grote financiële risico's en geeft toegang tot anderszins onbereikbare tandzorg (bijvoorbeeld, tandimplantaten en kronen). De kloof met het optimaal design van ziektekostenverzekering kan worden verklaard door factoren van vraag (gedragseconomie) en aanbod (de limieten van verzekerbaarheid). Beleidsmakers zouden zorgvuldig moeten overwegen welke tandzorg essentieel is en gedekt zou moeten zijn door de verplichte ziektekostenverzekering. Tandzorg die niet essentieel is en niet gedekt is door de verplichte ziektekostenverzekering zou onderworpen moeten zijn aan de private verzekeringslogica. Wanneer omwille van budgettaire beperkingen essentiële tandzorg niet kan worden gedekt door de verplichte ziektekostenverzekering, kan subsidiëring van private verzekeringen voor mensen met een laag inkomen een alternatief vormen voor een volledig publiek aanbod. We besluiten dit onderwerp met een discussie over mogelijke strategieën om het design van aanvullende tandzorgverzekeringen te verbeteren.

PZKV vertegenwoordigt slechts 5 procent van de totale gezondheidsuitgaven en een kwart van de private gezondheidsuitgaven in de EU. Hoge 'out-of-pocket' uitgaven staan haaks op een gelijke toegang tot de gezondheidszorg. Wanneer er geen dekking is door de verplichte ziektekostenverzekering, betekent het omzetten van 'out-of-pocket' uitgaven in uitgaven die gedekt zijn door PZKV een stap voorwaarts. Echter, PZKV betekenen slechts een stap voorwaarts wanneer de voordelen van verzekering opwegen tegen de nadelen ervan. Verzekeringsdekking is niet nodig voor iedere euro die 'out-of-pocket' wordt betaald. Dekking voorzien voor onbeduidende risico's en voor het eigen risico kan contraproductief zijn. Dekking voor niet wetenschappelijk onderbouwde behandelingen kan zelfs gevaarlijk zijn. Het stimuleren van concurrentie en het toepassen van private verzekeringslogica kan leiden tot een vermindering van de 'loading' kosten en een reductie van de 'moral hazard', wat -uiteindelijk- gunstig is voor de consument.

In de ideale wereld is alle essentiële zorg gedekt door de verplichte ziektekostenverzekering. In de reële wereld kan de verplichte ziektekostenverzekering worden aangevuld met vrijwillige private ziektekostenverzekeringen.

10. Curriculum vitae

Piet Calcoen
° May 8, 1966
Married to Iris Algoet with two children, Anais (2002) and Samuel (2004)

Education

Medicine:

- Medical Doctor, Universiteit Gent, June 1991, summa cum laude
- Diploma in Insurance Medicine, Universiteit Antwerpen, September 1997, cum laude

Law:

- Master in Laws (LL.M.), Yale University, U.S., June 1998 (B.A.E.F. fellowship, Rotary scholarship)
- Master in Laws, Universiteit Antwerpen, June 1997, cum laude

Philosophy/theology:

- Master in Philosophy, Vrije Universiteit Brussel, September 2004, summa cum laude
- Bachelor in Theology and in Canon Law, Katholieke Universiteit Leuven, June 1993, summa cum laude

Work

- Medical Director, DKV Belgium, Brussels (voluntary private health insurance) (2006-present)
- Adviser to Flemish Minister of Public Health, Inge Vervotte (2004-2005)
- Medical Adviser, Landsbond der Christelijke Mutualiteiten, Brussels (mandatory health insurance) (1999-2005)
- Associate, McKinsey&Company, Brussels (1998-1999)
- Practising Physician, emergency medicine, several hospitals (1991-1997)

Other functions

- Chair, Medical Commission, Assuralia (Professional association of insurance companies), Brussels (2008-present)
- Member, General Council, RIZIV/INAMI (National institute for health and disability insurance), Brussels (2010-present)
- Member, Board of Directors, Institut Jules Bordet (Specialised cancer treatment hospital), Brussels (2007-2012)
- Member Provincial Evaluation Commission, VAPH (Flemish agency for people with a disability), Brussels (1999-2003)

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Anais and Samuel. My beloved children.

In this thesis, several issues relating to private expenditure on health and voluntary private health insurance (PHI) are being discussed. The two themes are closely linked since expenditure covered by PHI is a part of private expenditure on health. The other part is out-of-pocket expenditure on health.

In the European Union (EU), private expenditure represents -on average- 21 per cent of total expenditure on health. Three quarters of private expenditure on health is financed out-of-pocket. PHI finances only 5 per cent of total health spending in the EU.

Out-of-pocket expenditure on health may negatively affect access to health care. Especially people on low incomes and in poor health are at risk. They may postpone or forgo necessary treatment because they are not able to pay the bill. In this study, we have focused on two issues relating to out-of-pocket expenditure on health: (i) extra payments guaranteeing free choice of provider (supplementary fees) and (ii) extra payments guaranteeing access to new health technology.

Voluntary private health insurance (PHI) can reduce the financial risk related to private health spending. In this thesis, two issues relating to PHI have been addressed: (i) regulation of PHI markets and (ii) optimal design of PHI products.