



# Selective contracting and channelling patients to preferred providers: A scoping review



Romy E. Bes<sup>a,\*</sup>, Emile C. Curfs<sup>b</sup>, Peter P. Groenewegen<sup>a</sup>, Judith D. de Jong<sup>a</sup>

<sup>a</sup> NIVEL (Netherlands Institute for Health Services Research), Otterstraat 118-124, 3513 CR, Utrecht, The Netherlands

<sup>b</sup> Open University, Valkenburgerweg 177, 6419 AT, Heerlen, The Netherlands

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## ABSTRACT

Selective contracting by health insurers and channelling patients to contracted providers is crucial in a health care system based on managed competition, as this should lead to better value for money delivery of healthcare. However, an important consequence for enrolees is that health insurers interfere with their choice of care provider. This scoping review aims to find out what is known about selective contracting from the enrolee's perspective. Is it being done and how do enrolees feel about the role of their health insurer in their care provider choice? A literature search was conducted, and, in addition, experts were consulted for extra information and documents. Results show that selective contracting and channelling are practised in several countries. This is mostly through negative financial incentives, which are also found to be the most effective strategy. However, enrolees are very negative about restrictions on provider choice introduced by their insurer. This results in enrolees feeling less satisfaction with, and trust in, care providers and health insurers. Choice is crucial in this respect since enrolees are more satisfied with their health plans and care providers when they have chosen them themselves. Future research should focus on the role of trust and how people weigh different attributes of health plans if selective contracting and channelling is to be implemented in a manner acceptable to enrolees.

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## 1. Introduction

Health care reforms have been implemented in several European countries over the last decades in order to improve quality and contain costs in the health care system [1–3]. Most of these reforms involved a shift from a supply to a demand-oriented health care system. In several countries these reforms were based on introducing managed competition. In such a system the health care market is a competitive market in which three important play-

ers interact; enrolees, care providers and health insurers (Fig. 1). The idea is that health insurers compete with each other for enrolees, based on the price and quality of their health plans. Therefore, health insurers have to negotiate with care providers about the price and quality of delivered care. Health insurers are allowed to contract care providers selectively, which means they do not have to contract with all care providers. There are two forms of selective contracting, one in an exclusive network of providers and one in a preferred provider network. In an exclusive provider network, enrolees will not be reimbursed if they choose to go to a non-contracted care provider – except in emergencies. In a preferred provider network, enrolees are allowed to go to any care provider they like, however, if they go to a provider that is not contracted by their insurer, they

\* Corresponding author.

E-mail addresses: [r.bes@nivel.nl](mailto:r.bes@nivel.nl) (R.E. Bes), [e.curfs@ou.nl](mailto:e.curfs@ou.nl) (E.C. Curfs), [p.groenewegen@nivel.nl](mailto:p.groenewegen@nivel.nl) (P.P. Groenewegen), [j.dejong@nivel.nl](mailto:j.dejong@nivel.nl) (J.D. de Jong).

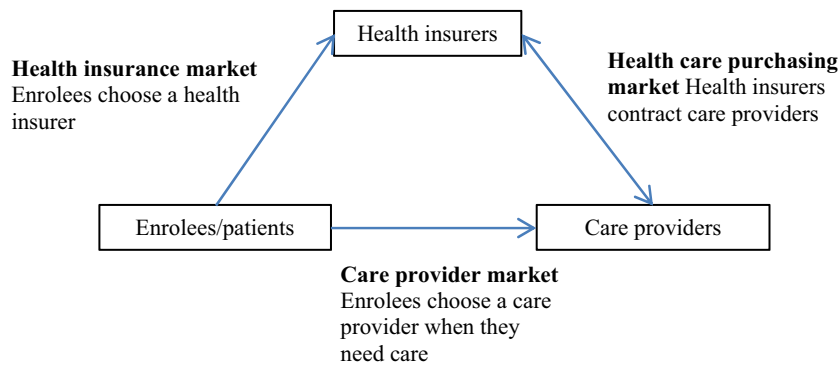


Fig. 1. Model of health care market in a system of managed competition.

have to pay a co-payment. This role of health insurers as a prudent purchaser of care is supposed to lead to competition between care providers which, in turn, should lead to better value for money delivery of health care [4].

Health insurers function as an intermediary between the enrolees -the potential patients- and care providers. To attract enrolees, health insurers need to offer health plans with an attractive network of care providers for a good price. Therefore, health insurers need to negotiate with care providers about the price and quality of the care they deliver. In these negotiations, health insurers need to have a strong bargaining position in order to negotiate discounts. For care providers, it is important that they get something in return for these discounts, namely more patients. Logically, health insurers with the largest market shares would be in the best positions to negotiate. However, Wu and Sorensen have found that health insurers' ability to channel enrolees to preferred or contracted care providers, is even more important. This is because when health insurers are successful in channelling their enrolees to preferred providers, the threat of care providers losing business when they are not contracted by the insurer becomes a credible one [5,6].

There are several ways to channel enrolees to preferred or contracted care providers. Health insurers can use negative financial incentives when enrolees go to a not contracted care provider, for instance by having enrolees pay a co-payment or by not reimbursing them at all. This last option, however, is not always allowed. In the Netherlands, regulated competition was introduced in 2006 with the introduction of the Health Insurance Act. In Europe this country is seen as an important example for the implementation of a managed competition health care system. Here, a part of the Health Insurance Act that gave health insurers autonomy to determine the reimbursement levels for non-contracted care providers was rejected by the Dutch parliament because free choice of care provider was threatened. Health insurers are now obligated to reimburse at least 75% of the costs of non-contracted care providers [7]. This made selective contracting and channelling enrolees to preferred care providers harder in the Netherlands. Other options to channel enrolees to preferred providers are positive financial incentives, for instance by giving discounts on co-payments when enrolees visit a contracted provider. Or to use quality incentives, for instance offer-

ing extra services or better quality of care when enrolees go to contracted providers. All these incentives require the involvement of the health insurer in their enrolees' choice of care provider. But these pose several questions: Are these incentives used by health insurers and do they work? And how do enrolees feel about the role of their health insurer in their care provider choice? We believe that little research has been done on this subject and no knowledge syntheses were conducted. Therefore, we aim to conduct an exploratory scoping review to find out what is known about selective contracting from the enrolee's perspective. Is it being done and how do enrolees feel about the role of their health insurer in their care provider choice? With this, we aim to contribute to the policy and research agenda on this subject.

## 2. Methods

A scoping review is a type of literature review that is used when: (1) it is difficult to identify a narrow research question; (2) studies in the reviewed sources are likely to have employed a range of data collection and analysis techniques; (3) no prior synthesis has been undertaken on the topic; and (4) a quality assessment of reviewed sources is not going to be conducted [8,9]. The scoping review method is an appropriate method to use for this knowledge synthesis since our aim to find out what is known about channelling enrolees to contracted care providers by health insurers is quite broad, we are not aware of any prior synthesis on this topic and a quality assessment of reviewed sources is not going to be conducted. However, it is possible that selective contracting and channelling is present in a particular country, but that there have been no scientific articles published about this. Therefore, in addition to the literature search, we approached experts from several European countries, where health care reforms were introduced in the last decades, in order to collect information on selective contracting in their countries.

### 2.1. Scoping review search strategy and selection

The databases Pubmed and Embase were searched for the scoping review. Before determining the search strategy, an initial broad search of the literature was conducted and a librarian was consulted. Since channelling or selec-

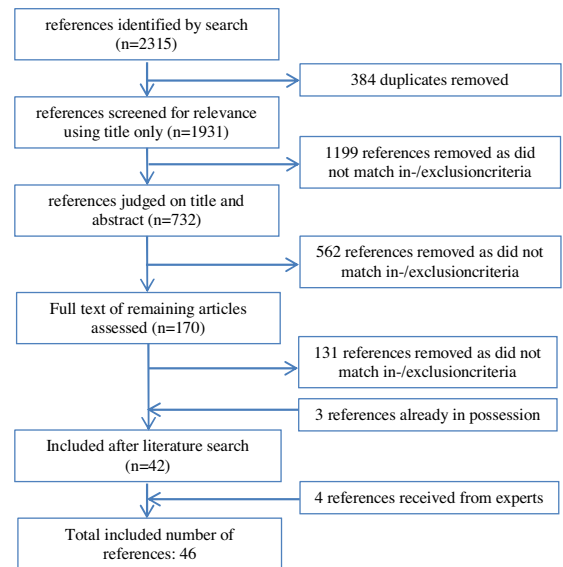
**Table 1**  
Search strategy in Pubmed.

	Enrolees
1	enrolees[tiab] OR enrolee[tiab] OR enrollees[tiab] OR enrollee[tiab]
2	patients[mesh]
3	patient[tiab] OR patients[tiab]
4	consumer[tiab] OR consumers[tiab]
5	insured[tiab]
6	#1 OR #2 OR #3 OR #4 OR #5
	Choice
7	choice[tiab] OR choosing[tiab]
8	patient preference[mesh]
9	choice behaviour[mesh]
10	#7 OR #8 OR #9
	Provider
11	provider[tiab] OR providers[tiab]
12	hospitals[mesh]
13	hospital[tiab] OR hospitals[tiab]
14	doctor[tiab] OR doctors[tiab]
15	physicians[mesh]
16	physician[tiab] OR physicians[tiab]
17	general practitioner[tiab] OR general practitioners[tiab] OR GP[tiab] OR GPs[tiab]
18	pharmacies[mesh]
19	pharmacy[tiab] OR pharmacies[tiab]
20	health personnel[mesh]
21	#11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20
	Health insurer
22	insurance, health[mesh]
23	health insurance[tiab]
24	health insurer[tiab] OR health insurers[tiab]
25	health plan[tiab] OR health plans[tiab]
26	purchaser[tiab] OR purchasers[tiab]
27	#22 OR #23 OR #24 OR #25 OR #26
28	#6 AND #10 AND #21 AND #27

**Table 2**  
Inclusion criteria for literature search.

1	The article is written in English, Dutch, German or French
2	It is empirical, scientific research
3	It is about choice of a care provider, not choice of treatment or health insurer/health plan
4	It is about factors that influence the choice of enrolees in general OR about factors that have to do with the influence of the health insurer on enrolees OR factors that influence enrolees' acceptance of their health insurers' influence on them.

tive contracting is about the influence of health insurers on enrolees' choices for a care provider we decided to search for the four main topics: enrolees, choice, providers and health insurers. These, and their synonyms combined with OR, were combined with AND in the search strategy. See Table 1 for the search strategy in Pubmed. A similar search strategy was conducted in Embase. After the literature search all duplicates were removed. Then, all articles were judged firstly on the title alone. Then on the title, the abstract and the full text (Fig. 2), following the inclusion criteria listed in Table 2. Additionally, relevant references and reports that we were already aware of were added. This resulted in a total of 42 References.



**Fig. 2.** Flow diagram of review process.

## 2.2. Expert approach

Almost all the studies we found in the literature search were conducted in the US or the Netherlands. However, we wanted to collect information too from a number of European countries who have also undergone health reforms. Therefore, in addition to the literature search, experts on health care system research in Belgium, Germany and Switzerland were asked for information on selective contracting and channelling of enrolees by health insurers. Experts were chosen based on their scientific expertise or where they work, for instance in a national knowledge centre for health care. The experts were asked specifically to provide information about selective contracting and channelling enrolees to contracted/preferred care providers in their countries. Do health insurers channel enrolees to contracted care providers? If so, how? And what are the consequences of channelling for enrolees? Furthermore, they were asked to provide documents or reports that could be helpful in answering these questions.

## 3. Results

The flow diagram (Fig. 2) shows the process of excluding papers. In the end, 46 papers were included in this scoping review, including the papers that were sent by the experts in the field (Table 3). Some experts sent documents, but most gave only a written response to our questions. The findings are discussed in four sections. First, we will discuss whether selective contracting and channelling is conducted in different countries, the second part is about how channelling of enrolees is being done in different countries, thirdly, we will discuss enrolees perspectives on selective contracting, and lastly, consequences of selective contracting for enrolees will be addressed.

**Table 3**  
Included studies (N = 46).

First author, year	Country	Methods/participants/data	Section
Abraham, 2011 [9]	US	Survey of 467 patients at four clinics in Minnesota	3.1
Allen 1984 [34]	US	Telephone interviews on 365 adults from Los Angeles	3.3
Bes, 2012 [46]	Netherlands	Survey of 2679 enrollees of a health insurer	3.3
Bin Saeed, 1998 [20]	Saudi Arabia	Survey of 541 patients in 2 government and 2 private hospitals	3.1
Boonen, 2008 [26]	Netherlands	Analysis of registration data from two health insurers	3.2
Boonen, 2009 [25]	Netherlands	Discrete Choice Experiment (DCE) Survey on 1.875 respondents from representative household panel	3.2
Boonen, 2011 [10]	Netherlands	Review of available data, interviews with four directors of health insurance companies and annual surveys on a representative panel of Dutch adult population covering the years 2005–2009 (N = 803–2234)	3.1, 3.2, 3.3
Boonen, 2011 [24]	Netherlands	Discrete Choice Experiment (DCE) survey of 1.907 and 1.857 respondents of representative household panel	3.2
Chernew, 1998 [15]	US	Analysis of discharge data from hospitals	3.1, 3.4
Chu-Weininger, 2006 [49]	US	Telephone survey on 564 households	3.4
Cooper, 1996 [16]	US	13.336 interviews with individuals who visited a care provider	3.1
Curbow, 1986 [35]	US	Interviews with 180 women who visited an urban welfare office	3.3
Davis, 1995 [36]	US	Telephone interviews with 3.000 enrollees of fee-for-service and managed care organizations	3.3, 3.4
Donelan, 2010 [27]	US	Survey on 3.490 employees of large national firm	3.2
Draper, 2002 [37]	US	Interviews with 895 key participants in the local healthcare markets	3.3
Duijmelinck, 2016 [45]	Netherlands	Literature review	3.3
Dutch Health care Authority, [22]	Netherlands	Surveys among GPs end patients, interviews with health insurers, trade organizations, civil society organizations and consumer and patient organizations	3.1, 3.3
Fitzgerald, 2012 [53]	US	Analysis on data of Medicare Provider Analysis and Review (MEDPAR) administrative records	3.4
Forrest, 2002 [38]	US	Telephone survey of 19.415 18- to 64 year-old adults whose most recent visit in the past 12 months was their primary care provider	3.3, 3.4
Freedman, 2015 [12]	US	Survey interviews of 500 women	3.1
Harris, 2002 [48]	US	Discrete Choice Experiment (DCE) survey of 206 adults aged 25–64 in Los Angeles metropolitan area	3.3
Howard, 2008 [54]	US	Analysis on outcome data of transplant centres	3.4
Kemper, 1999 [39]	US	Analysis on nationally representative data from the Community Tracking Study	3.3, 3.4
Kemper, 2002 [40]	US	Survey of 25.560 individuals who have private health insurance	3.3, 3.4
Kreier, 2010 [18]	Switzerland	Results are based on literature review and knowledge of the authors	3.1
Kyanko, 2013 [17]	US	Survey of 7.812 privately insured adults	3.1
Leu, 2009 [19]	Switzerland, Netherlands	Results are based on literature and knowledge of the authors from the different countries	3.1
Linton, 2007 [28]	US	Analysis on prescription fill records of 300.084 beneficiaries	3.2
Maarse, 2016 [23]	Netherlands	Literature review	3.1, 3.3
Manning, 2016 [13]	US	Questionnaires to 231 patients who sought treatment by one spine surgeon	3.1
McGlone, 2002 [14]	US	Survey of 222 adults who have a PCP	3.1
Sakowski, 2004 [41]	US	Survey of 1.224 18–64 year-old adults with private health insurance	3.3
Scanlon, 2008 [29]	US	Analysis on claims and enrolment data, hospital level data, discharge data and hospital admissions and discount data	3.2
Schmittziel, 1997 [51]	US	Survey of 11.494 adults enrolled in an HMO	3.4
Schur, 1998 [42]	US	Telephone and in-person follow up survey of 2.498 adults	3.3
Sinaiko, 2011 [30]	US	Survey of 4.200 Massachusetts state employees	3.2
Sinaiko, 2014 [33]	US	Analysis of claims and enrollment data of six health plans over July 2004 to June 2010	3.2, 3.4
Sofaer, 1993 [31]	US	Interviews with 811 members of an HMO	3.2
Stevens, 2002 [43]	US	Telephone survey of 413 parents of a random sample of children attending elementary school in southern California	3.3, 3.4

Table 3 (Continued)

First author, year	Country	Methods/participants/data	Section
Tai-Seale, 2003 [50]	US	Survey of 1.172 respondent who indicated they could switch health plans	3.4
Thomson, 2013 [11]	Belgium, Germany, Netherlands, Switzerland	Results are based on literature and knowledge of the authors from the different countries	3.1
Tu, 2005 [47]	US	Yearly telephone survey data of adults aged 18–64, N=39.000 in 2001 and 2002, N=30.000 in 2003	3.3
van de Ven, 2013 [3]	Belgium, Germany, Israel, Netherlands, Switzerland	Results are based on literature and the knowledge of the authors from the different countries	3.1
van der Geest, 2015 [32]	Netherlands	Analysis of claims data from a health insurer from January 2007 to December 2009	3.2
Williams, 2003 [52]	US	Telephone survey of 2.427 households enrolled in HMO	3.4
Yip, 1998 [21]	China	Survey of 1.877 households in Beijing	3.1

### 3.1. Do health insurers channel enrolees to contracted care providers?

Selective contracting and channelling seem to be carried out mainly in the US, but they are also present in Switzerland, Israel and the Netherlands e.g. [3,10–12]. In the US, different types of health plans are available and they differ in how far they restrict freedom of provider choice. Health Maintenance Organisations (HMOs) are managed care organisations that impose the most restrictions in care provider choice, while Fee-For-Service (FFS) is not managed, offering a free choice. HMOs seem to be able to channel enrolees to contracted care providers, since enrolees take the list of contracted providers into account when they choose a care provider [10,13,14]. McGlone et al. also emphasize that the reimbursement policy of the health insurer plays an important role in the selection of a primary care provider (PCP) [15]. Other studies from the US found that enrolees who chose an HMO that limits provider choice, use different care providers than other enrolees [16,17]. A study by Kyanko et al. showed that most patients visit in-network providers. Only 8% of enrolees who went to a care provider had visited an out-of-network provider. The majority (72,6%) of these did so on purpose, because, for instance, they wanted to continue treatment with a previously known physician or because this physician was recommended by friends or family [18]. In the US, literature on managed care organisations often describe broader issues than specifically channelling enrolees to contracted care providers. Those papers were not included in this study. We find that the overall reason why enrolees are channelled to contracted care providers successfully is that they want to avoid considerable out-of-pocket payments, since out-of-network providers are usually not reimbursed by their health plans.

According to both an expert's opinion and two papers, channelling enrolees to contracted providers is also common in Switzerland [19,20]. There, health insurance is mandatory and enrolees can choose between different health insurers. In addition to regular health plans offering a free choice of provider, health insurers also offer some sort of managed care plans. Enrolment in these managed care plans is growing (1,7% in 1996–12,1% in 2005 [19,20] and 60% in 2013 (expert)). However, not all forms of these managed care plans involve selective contracting,

two-thirds of the managed care enrolees have fee-for-service plans with gatekeeping provisions [20]. In Israel, all health insurers offer only managed care contracts and offer a panel of care providers that differ between health insurers. Enrolees are not reimbursed when they go to a non-contracted care provider [3]. Experts from the other two European countries that reformed their health care in the last decades, Germany and Belgium, say selective contracting and channelling patients to preferred, contracted care providers is rare. This view was supported by two papers that compare the health care markets of European countries that have reformed health care in the last decades [3,12]. We found two studies from other countries, Saudi Arabia and China. In these papers, the involvement of health insurers in enrolees' choice of care provider was solely that enrolees take into account the reimbursement of their health insurer when they choose a care provider [21,22]. We expect this to be the case in every country where health insurers are allowed to select care providers and determine their own levels of reimbursement.

In the Netherlands, where health insurers are supposed to contract care providers selectively in order to take up their role as prudent buyers of care, insurers are reluctant to implement selective contracting. The Dutch Health Care Authority drew the same conclusion one year after the implementation of the Health Insurance Act in the Netherlands in 2006 [23]. The reasons for this are that there is still uncertainty about the minimal level of reimbursement for enrolees who visit non-contracted care providers, there is a lack of transparency in the health insurance market and a lack of reliable quality indicators for health care. In addition many enrolees still value the advice of their GP above all when they choose a care provider [23]. Even by 2011, Boonen et al. found that health insurers are still reluctant to implement selective contracting [11]. They argue that the most important reason for this is a credible commitment problem; health insurers believe that their enrolees do not trust them to purchase good quality care on their behalf. They also found that enrolees are unwilling to listen to their health insurers' advice on the choice of care provider. However, this differs according to the type of provider. Enrolees are more willing to listen to their health insurer in relation to pharmacy or hospital choice and less when it comes to choosing a GP or a dentist. Maarse et al. reviewed the results of the Dutch health

care reform and found that selective contracting is mainly done in pharmaceutical care. He also stated that enrolees do not trust health insurers to purchase good quality care on their behalf [24]. However, the take-up of selective contracting and the implementation of incentives to channel enrolees to preferred or contracted providers has been growing strongly in the last years [12]. We see a growth in the number of health plans in which selective contracting is practiced. This is especially true for health plans where care providers are selected for specific treatments, such as cancer treatments and hip or knee replacement surgery. Enrolees are given an incentive such as offering only partial reimbursement of healthcare costs when they go to a non-contracted care provider or a positive financial incentive, such as a financial bonus when a preferred provider is chosen [11].

### 3.1.1. Summary

There are differences between countries in the implementation of selective contracting and channelling. In the US, Switzerland and Israel selective contracting is practised, mostly by using negative financial incentives, such as by refusing reimbursement or introducing co-payments when enrolees visit out-of-network providers. In the Netherlands, the uptake of selective contracting is growing, although health insurers are still reluctant to implement this, since they fear their enrolees will not accept this and change insurers.

### 3.2. How do, or how can, health insurers channel enrolees to contracted care providers?

We found nine studies that investigated ways to channel patients to preferred or contracted providers [11,25–33]. Five of these were conducted in the Netherlands [11,25–27,33]. The other studies were conducted in the US [28–32].

#### 3.2.1. Channelling incentives and status quo bias

One study used a natural experiment to investigate a small financial incentive (\$6 (generic)/\$18 (brand) out-of-pocket cost savings per supply) to channel enrolees of 65 years and older to an online pharmacy. This incentive was found to be ineffective. However, it did not reveal why. The incentive could have been too low, but it could also be that enrolees did not know about the incentive or were not able, or did not want to, use the online pharmacy. Age and distance to the pharmacy were the most important predictors of using the online pharmacy [29]. An article by Donelan and colleagues reports from a natural experiment where enrolees were offered a telephone service to help them choose a care provider. This service channelled enrolees towards choosing high quality care providers. The service was offered by the employer. Enrolees were very positive about this service and most enrolees who used it also followed the recommendations. However, many enrolees were not aware the service existed. Furthermore, it is very important that the information comes from a trusted source [28]. Research from the Netherlands shows that enrolees are unwilling to accept advice from their health insurer about which care provider to choose [11,26]. Will-

ingness to accept advice from the health insurer is lowest for the choice of a GP and dentist, followed by physiotherapist, pharmacy and hospital [11]. Boonen et al. studied channelling strategies on the choice of a pharmacy by conducting a discrete choice experiment and found that both negative and positive financial incentives could work to channel enrolees to preferred providers. However, enrolees react much more strongly to negative financial incentives (co-payments) than to positive financial incentives (discounts). Quality incentives, namely customer satisfaction ratings, extended opening hours and the availability of a quality certificate, also have an effect on provider choice. Additionally, they found that status quo bias plays an important role in the ability to channel enrolees to preferred providers. Even though there are better options available, enrolees are reluctant to leave their current care provider [26]. A natural experiment showed that even small and temporary incentives have an effect on pharmacy choice [27]. However, the larger the incentive, the more likely that enrolees choose the preferred pharmacy and more enrolees stayed with the preferred pharmacy when the incentive was permanent [27]. Another natural experiment studied the effectiveness of channelling to specific hospitals for cataract surgery and varicose veins treatment. The incentive was exemption of paying the deductible when visiting a preferred provider. It was found to be effective for varicose veins treatment, not for cataract surgery. Reason for this was probably that enrolees who need cataract surgery are usually older and more likely to need care for other complaints as well. Therefore they would use up their deductible anyway and would not benefit from this incentive. Varicose veins patients are usually younger and therefore more likely to benefit from the incentive [33]. A discrete choice experiment by Boonen et al. shows that the impact of channelling incentives differs between different types of provider. For GPs, channelling incentives was less effective compared to pharmacies, most probably because enrolees have a more personal relationship with their GP than with their pharmacy. Status quo bias is much stronger for GPs than for pharmacies. This means that channelling enrolees to preferred GPs will be more costly, but if it succeeds, it is also more likely that the enrolee will stay with that GP [25]. However, it is also likely that enrolees will not accept this, since, according to Sofaer and Hurwicz, loyalty to the care provider (GP) is likely to be higher than loyalty to the health insurer. In this study, conducted in the US, authors conclude from a natural experiment that most enrolees switched health plans when their HMO cancelled the contract with their current care provider. They chose instead a health plan that does contract with their current provider [32].

#### 3.2.2. Tiered networks

Sinaiko researched channelling enrolees to preferred providers in the context of a tiered network [31]. In a tiered network, enrolees have freedom of provider choice. The care providers are ranked by the health insurer on their level of preference, based on their performance on cost-effectiveness and quality. The most preferred providers are ranked in Tier 1. When enrolees choose a provider in Tier 1, they pay less or no out-of-pocket payments com-

pared to when they choose a provider in a lower tier. The lower the tier, the higher the co-payments. In a hypothetical setting, Sinaiko shows that most enrollees (90%) would choose a Tier 1 provider when the Tier 2 provider costs \$10–35 more than the Tier 1 provider. However, when a Tier 2 provider is recommended by a friend or family member, half of the enrollees would choose the Tier 2 provider. Even more enrollees would choose the Tier 2 provider when this provider is recommended by another physician. Channelling enrollees to the Tier 1 provider then would only succeed when the co-payment of a Tier 2 provider is much higher (\$290–440). The medical condition for which enrollees needed to choose a physician also mattered. Co-payments were less important to people when they had to choose a cardiologist for a heart condition, than when they had to choose a dermatologist for a routine skin check [31]. Scanlon et al. also researched channelling enrollees in a tiered hospital network, only they reported from a natural experiment. The subjects were employees, engineers and machinists of a large manufacturing company [30]. The tiers were based on a quality indicator, safety, with the safest hospitals in Tier 1. When enrollees use a Tier 1 hospital they did not need to pay any co-insurance and their co-payment was lower. The results showed that this incentive worked, since enrollees who were exposed to the incentive were more likely to choose a safer hospital compared to the group that was not. However, this was only true for the engineers, not the machinists. The engineers are higher educated and, therefore, they may have found it easier to learn how to take advantage of this incentive. It is possible that the incentive will also work for the machinists, for instance if they are better informed about the incentive and how to benefit from it, but this is not clear [30]. A study on claims and enrolment data of a health plan that included a tiered physician network found that physicians in the lowest tier had the lowest market share of new patient visits compared to higher tiered physicians. Furthermore, tiering has the most effect when enrollees are looking for a new physician. The effect is absent when enrollees already have a relationship with a physician [34].

### 3.2.3. Summary

Channelling enrollees to preferred or contracted providers by using financial incentives seems to be most effective. Negative financial incentives are more effective than positive financial incentives. Other options are incentives related to quality. Furthermore, there is a strong status quo bias, which means that enrollees tend to prefer their current provider even if a better alternative is available. It is also possible in a tiered network to channel enrollees to preferred providers. Here, enrollees have freedom of choice, but their health insurer ranks care providers on quality and price and when they choose a provider in the highest tier (preferred) they have to pay lower out-of-pocket payments or co-insurance. This is also a negative financial incentive. The type of provider, the condition or the health status of the enrollees, recommendations from others and also the ability of enrollees to understand the preconditions of the health plan, may influence in how far

enrollees can be channelled to preferred or contracted care providers.

### 3.3. Enrolees' attitudes towards channelling by health insurers

#### 3.3.1. Enrolees are negative about choice restrictions

We found research showing that in general enrollees think negatively about restrictions in provider choice [24,35–45]. Allen researched, through telephone interviews, customers' responses to three cost containment strategies for health care provision. Among these strategies was the use of preferred provider networks. Results showed that customers are negative about this strategy. Younger people, people with lower social economic status and non-white people were least negative about preferred provider arrangements [35]. Schur and Dorosh also conducted a survey to study the acceptance of cost containment strategies, among which was 'to choose a physician from a list'. They also showed that enrollees were negative about this. Older people, people with ischaemic heart disease, people with poor health status and enrollees of a FFS health plan were most negative, and the uninsured, poorer people and enrollees already in managed care, were least negative [43]. Results from a survey conducted by Sakowski et al. showed that, together with dissatisfaction with the coverage of preventive services, dissatisfaction with choice of providers is the largest predictor of enrollees' unwillingness to recommend their health plan to others [42]. In the Netherlands, it was found that health insurers are reluctant to implement restrictions in provider choice, because they fear losing enrollees, since they believe that their enrollees will not trust them to purchase good quality care on their behalf [11,24]. In previous research we conducted in the Netherlands we found that most enrollees (60%) are positive that their health insurer would not contract low quality care providers. However, most enrollees (55%) also indicate they would not want advice from their health insurer on care provider choice, let alone have their health insurer restrict their choice. Many enrollees say they would rather choose a care provider themselves and they question the intentions of the health insurer [46].

#### 3.3.2. How to overcome this negative attitude?

In the US negativity about restrictions in provider choice has led to the so-called 'managed care backlash', a collective resentment against managed care [45]. Because of this, HMOs started to increase their freedom of provider choice, which resulted in an increase in co-payments and higher premiums in order to keep health care affordable [38,45,47]. A study from the US shows that 59% of insured employees are now willing to give up some freedom of provider choice in exchange for lower costs [47]. Enrolees with a low income (67%) were more likely to be willing to give up some freedom of choice compared to enrollees with a high income (54%). Among chronically ill enrollees, the percentage was 56%. However, a large number of enrollees was not willing to give up freedom of provider choice for lower costs and the conclusion was that preferences differ substantially amongst enrollees. Therefore, it is important that choice options are given [47]. In a report

on selective contracting by the Dutch Health Care Authority, authors state that satisfaction with a restrictive health plan is higher when enrolees have consciously chosen this health plan themselves, rather than it being assigned to them, for instance when health insurers readily implement it or, in the case of the US, when their employer only offers a restrictive health plan [23]. Duijmelink et al. studied the managed care backlash of the US to find lessons for Europe. One of these lessons includes giving enrolees a choice between types of health plans. Other things they recommend are providing enrolees with information about the quality of care of providers and about managed care and the effects of it [45]. Harris studied whether high quality of care could overcome the resistance of enrolees to restrictions in provider choice. Results show that a high quality of care increases the willingness of enrolees to accept restrictions in provider choice. However, for enrolees to accept this, the level of quality of care needs to be very high. It is most likely to be too high to be attainable [48].

### 3.3.3. Summary

Enrolees are very negative about restrictions in provider choice. However, since the out-of-pocket costs in the US were rising with the implementation of more freedom of choice, more and more enrolees are willing to give up some freedom of choice for lower co-payments. Also, enrolees who chose a restrictive health plan, for instance to save costs, seem to be more positive about their health plan.

## 3.4. Consequences of selective contracting for enrolees

### 3.4.1. Negative consequences

It was found that not having a choice, or having restrictions in provider choice, has negative effects upon the patient-provider relationship. This is because enrolees with restricted choice of primary care provider (PCP) report lower trust in their PCP [37,40,41,44,49,50] and lower satisfaction with their PCP [39,51]. Even when the physician was not very popular in general, enrolees who chose their own physician were always more satisfied than enrolees who were assigned one [51]. HMO enrolees also report lower satisfaction with their health care in general [40]. Selective contracting also affects the way enrolees look at their health insurer. Enrolees' trust in their health plan is lower when there are restrictions in provider choice [44]. Furthermore, enrolees are more likely to recommend their health plan to others when they are satisfied with their PCP and when they have a choice of PCP [52]. Sinaiko found that when patients already have a relationship with a physician and their health plan places their physician in the lowest tier, they are 75% more likely to switch health plans [34]. Patients also experience more out-of-pocket costs, because they have to pay a co-payment when they use an out-of-network provider, and endure more administrative barriers in when they are enrolled in a managed care organisation. Fitzgerald et al. studied the impact on patients to see if they would be channelled to high-volume hospitals and found that for most enrolees this would not result in unmanageable travel distances. Except for patients in rural areas, who would sometimes have to travel further. In urban areas, the choice of a low-volume hospital is associ-

ated with lower socioeconomic status. Channelling to high volume hospitals could limit access to care for this group [53].

### 3.4.2. Positive consequences

We found a few papers that review the impact of selective contracting on the quality of care that enrolees receive. Selective contracting seems to lead to better health care quality even though enrolees covered through HMO insurance assess their care as worse than those not insured with an HMO. Howard compared differences in quality between in-network and out-of-network providers, and found that in-network providers have better outcomes. A reason for health plans to contract high quality care providers is that patients will be more likely to enrol when the provider network includes such providers. He also found that patients insured privately with restrictive provider networks are more likely to register at hospitals with higher survival rates [54]. Chernenov et al. found that enrolees of HMOs travel farther to hospitals, but also that they receive better quality of care [16]. Kemper et al. compare different types of insurance with regard to patients' use of services, access to care, and assessment of care. Looking at the whole range of managed care from completely unmanaged to highly managed, they found no proof of differences in unmet need or delayed care, the use of hospitals, and in the use of surgery and emergency rooms [41]. To be more sure of the effects of selective contracting on quality of care in general, a more specific literature search on this subject needs to be conducted.

### 3.4.3. Summary

The consequences of restrictions in choice are that enrolees have less trust in their care providers and in their health insurer. Furthermore, enrolees in managed care need to travel farther for their care providers. It is however positive that in-network providers seem to deliver better quality of care compared to out-of-network providers, which means that restrictive health plans contract good quality care providers for their enrolees. On the other hand, the finding that enrolees in HMOs assess their care as worse than those not insured with an HMO, shows that the negative impact of restricting choice has a heavy impact on enrolees.

## 4. Discussion

In the theory of managed competition, selective contracting by health insurers is important. Health insurers are supposed to negotiate with care providers, both to promote improvement in the quality of health care and to control the costs. In order to have a strong bargaining position in negotiations with care providers, health insurers need to be able to channel their enrolees to contracted care providers. This scoping review was conducted to find out what is known about health insurers channelling enrolees to contracted care providers. Overall, the results of this scoping review show that selective contracting is mainly practised in the US, but also in Switzerland and Israel. In the Netherlands, it is increasingly being implemented. Enrolees are mostly channelled to preferred or



contracted care providers through negative financial incentives such as co-payments. We also found that this is the most effective strategy for channelling patients to preferred or contracted providers. There are other options too, such as quality incentives or advice from the health insurer. However, trust in their health insurer seems to be too low to accept advice about the choice of care provider. Furthermore, enrolees are very negative about restrictions in provider choice. The consequences of restricting choice are that satisfaction with, and trust in, care providers and the health insurer diminish. Choice seems to be crucial in this respect. Enrolees are more satisfied with their health plans and care providers when they have chosen them themselves instead of them being assigned by their employer and health plan, respectively.

#### 4.1. Strengths and limitations

A strength of this scoping review is the very broad search strategy developed together with a librarian. This resulted in over 2000 references that were all assessed, in part, by two reviewers. Therefore, it is likely that few references were missed. In addition, we asked experts in the field for their knowledge on the subject and for documents to add to our results. A limitation of this study is that we only searched for scientific papers, which could mean that we missed grey literature such as reports. However, we also added references from our own possession and experts to our search results, which were reports and not scientific papers.

#### 4.2. Knowledge gaps and future research

According to the theory of managed competition, selective contracting and channelling enrolees to contracted care providers is very important if a health care system based on managed competition is to achieve its goals of improving the quality of care and containing costs. Since the results of this knowledge synthesis showed that channelling enrolees is possible, but that enrolees are very negative about this, the question that remains is: How can selective contracting and channelling be implemented in a way that is acceptable to enrolees? It was shown in this paper that choice is very important to enrolees and that enrolees are more satisfied with their health plan when they have chosen it themselves. This can be explained by the Self Determination Theory (SDT), which states that autonomy is one of the basic human needs [55,56]. But, under which conditions will enrolees choose a restrictive health plan over a health plan with more freedom of choice? According to economic theory and the assumptions which underpin health care systems based on managed competition, enrolees are critical consumers who make rational choices [4,57]. The idea is that enrolees would want to maximize their utility according to their preferences with the means they have available. Lancaster's theory states that, instead of the good itself, utility is derived from the properties or characteristics, named attributes, of the good [58]. Thus, enrolees need to weigh different attributes of health plans, such as coverage, freedom of choice and whether their preferred care provider is contracted against

price and other "costs", such as the time and effort that it takes to change insurers. Research questions that need to be answered would be: How much cheaper does a restrictive health plan need to be for enrolees to choose it? And, what role do other important attributes such as quality, freedom of choice and travel distance to the nearest contracted hospital, play in this? For example, are enrolees willing to travel further for a care provider in exchange for a lower premium? Furthermore, it is expected that preferences for different attributes differ between enrolees with different characteristics. For instance, the reviewed literature showed that compared to enrolees with a lower income, enrolees with a higher income are more willing to give up some freedom of provider choice in exchange for a lower premium or co-payments, while enrolees with a chronic condition are less willing to give up freedom of choice in exchange for lower costs, compared to healthier enrolees. It would be interesting to look further into enrolees' characteristics in combination with their preferences for types of health plans and the effectiveness of channelling incentives. Research questions could be: Under which conditions will different types of enrolees choose a restrictive health plan? And, for which enrolees will different types of incentives be more effective? Determan et al., from the Netherlands, recently conducted a DCE and found that young and healthy enrolees are willing to accept selective contracting when prices of such health plans are lower than they are now. Also, older enrolees and enrolees in poorer health are not likely to choose a restrictive health plan at all [59]. However, this is only one study, and travel distance to the nearest care provider, which is very important to enrolees [60,61], was not included in the analyses. Therefore more research is needed to find out how enrolees weigh different attributes of health plans against each other. Furthermore, we found that trust in the health insurer may be an important factor in the acceptance of selective contracting. Enrolees supposedly do not trust their health insurer to purchase good quality health care. A lack of trust may thus be a factor that adds to the "costs" of a restrictive health plan. It is likely that enrolees with greater trust in their health insurer will accept selective contracting more readily. This is confirmed by the findings of Bes et al. [62]. Therefore, it is important that health insurers focus on ways to restore or gain the trust of their enrolees.

#### 4.3. Policy implications

The results of this scoping review are relevant to consider if selective contracting is going to be implemented. It is important to look further into how selective contracting and channelling can be implemented in such a way that enrolees will accept it. Since this paper showed there are many negative aspects to selective contracting for enrolees, it is important too to consider other ways to improve quality and reduce costs in health care systems based on managed competition. Because of the resentment towards choice restrictions, it may be better if health insurers use soft incentives, such as providing only advice to enrolees on choosing a care provider. While trust in health insurers is quite low, soft incentives are less likely to be effective as a channelling method. However, trust may be

built up over time, while financial incentives may lower trust even further. Furthermore, policy that is effective in one country will not necessarily be successful in another. When looking at other countries in order to find solutions to common problems, it is important to note that the degree to which policy can be transferred between countries may be hampered by contextual differences within the different health care systems. This often makes direct copying of policy impossible, since policy needs to be adjusted to the specific situation in a country [63,64]. For example, in the Netherlands before the insurance reform, enrollees were used to free choice of care provider. This may make the switch to restrictive health plans in the current health care system more negative for them compared to enrollees in countries where free choice was never de norm.

## 5. Conclusions

This scoping review shows that channelling enrolees to preferred or contracted providers is possible. In channelling enrolees, negative financial incentives are most effective. However, these also have the most negative consequences for enrolees. There are other options to channel patients to preferred or contracted providers such as quality incentives or advice from the health insurer. However, these are less effective and for these options to succeed enrolees must first trust their health insurer. Currently, trust in health insurers seems to be too low to accept advice on care provider choice. Enrolees are very negative about restrictions in provider choice introduced by the health insurer. Restrictions in provider choice also have negative consequences for satisfaction with, and trust in, care providers and the health insurer. In order to implement selective contracting and channelling in a way acceptable to enrolees, research should focus on how health insurers can gain or restore trust enrolees have in them and how people weigh different attributes of health plans. The results of this study provide a good starting point for further research as it sheds light on several knowledge gaps.

## Conflicts of interest statement

RB, PG and JJ declare that they have no competing interests. During the data collection EC was employed part-time (40%) by VGZ.

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