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Selective contracting and channelling patients to preferredproviders: A scoping review

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ABSTRACT

Selective contracting by health insurers and channelling patients to contracted providers iscrucial in a health care system based on managed competition, as this should lead to bettervalue for money delivery of healthcare. However, an important consequence for enroleesis that health insurers interfere with their choice of care provider. This scoping reviewaims 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 theircare provider choice? A literature search was conducted, and, in addition, experts wereconsulted for extra information and documents. Results show that selective contractingand channelling are practised in several countries. This is mostly through negative financialincentives, which are also found to be the most effective strategy. However, enrolees arevery negative about restrictions on provider choice introduced by their insurer. This resultsin 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 plansand care providers when they have chosen them themselves. Future research should focuson the role of trust and how people weigh different attributes of health plans if selectivecontracting and channelling is to be implemented in a manner acceptable to enrolees.

INTRODUCTION

Health care reforms have been implemented in sev-eral European countries over the last decades in order toimprove quality and contain costs in the health care sys-tem [1–3]. Most of these reforms involved a shift from asupply to a demand-oriented health care system. In severalcountries these reforms were based on introducing man-aged competition. In such a system the health care marketis a competitive market in which three important players interact; enrolees, care providers and health

insurers(Fig. 1). The idea is that health insurers compete with eachother for enrolees, based on the price and quality of theirhealth plans. Therefore, health insurers have to negotiatewith care providers about the price and quality of deliveredcare. Health insurers are allowed to contract care providersselectively, which means they do not have to contract withall care providers. There are two forms of selective con-tracting, one in an exclusive network of providers and onein a preferred provider network. In an exclusive providernetwork, enrolees will not be reimbursed if they choose togo to a non-contracted care provider – except in emergen-cies. In a preferred provider network, enrolees are allowedto go to any care provider they like, however, if they goto a provider that is not contracted by their insurer, they have to pay a co-payment. This role of health insurers as aprudent purchaser of care is supposed to lead to competi-tion between care providers which, in turn, should lead tobetter value for money delivery of health care [4].Health insurers function as an intermediary betweenthe enrolees -the potential patients- and care providers. Toattract enrolees, health insurers need to offer health planswith an attractive network of care providers for a goodprice. Therefore, health insurers need to negotiate withcare providers about the price and quality of the care theydeliver. In these negotiations, health insurers need to havea strong bargaining position in order to negotiate discounts.For care providers, it is important that they get somethingin return for these discounts, namely more patients. Logi-cally, health insurers with the largest market shares wouldbe in the best positions to negotiate. However, Wu andSorensen have found that health insurers' ability to chan-nel enrolees to preferred or contracted care providers, iseven more important. This is because when health insur-ers are successful in channelling their enrolees to preferredproviders, the threat of care providers losing business whenthey are not contracted by the insurer becomes a credibleone [5,6].There are several ways to channel enrolees to pre-ferred or contracted care providers. Health insurers can usenegative financial incentives when enrolees go to a not con-tracted care provider, for instance by having enrolees paya co-payment or by not reimbursing them at all. This lastoption, however, is not always allowed. In the Netherlands,regulated competition was introduced in 2006 with theintroduction of the Health Insurance Act. In Europe thiscountry is seen as an important example for the implemen-tation of a managed competition health care system. Here,a part of the Health Insurance Act that gave health insur-ers autonomy to determine the reimbursement levels fornon-contracted care providers was rejected by the Dutchparliament because free choice of care provider was threat-ened. Health insurers are now obligated to reimburse atleast 75% of the costs of non-contracted care providers [7].This made selective contracting and channelling enroleesto preferred care providers harder in the Netherlands.Other options to channel enrolees to preferred providersare positive financial incentives, for instance by giving dis-counts on co-payments when enrolees visit a contractedprovider. Or to use quality incentives, for instance offer-ing extra services or better quality of care when enroleesgo to contracted providers. All these incentives require theinvolvement of the health insurer in their enrolees' choiceof care provider. But these pose several questions: Arethese incentives used by health insurers and do they work?And how do enrolees feel about the role of their healthinsurer in their care provider choice? We believe that littleresearch has been done on this subject and no knowledgesyntheses were conducted. Therefore, we aim to conductan exploratory scoping review to find out what is knownabout selective contracting from the enrolee's perspective.Is it

being done and how do enrolees feel about the role oftheir health insurer in their care provider choice? With this,we aim to contribute to the policy and research agenda onthis subject.

[FIGURE 1]

2. METHODS

A scoping review is a type of literature review that isused when: (1) it is difficult to identify a narrow researchquestion; (2) studies in the reviewed sources are likely tohave employed a range of data collection and analysis tech-niques; (3) no prior synthesis has been undertaken on thetopic; and (4) a quality assessment of reviewed sourcesis not going to be conducted [8,9]. The scoping reviewmethod is an appropriate method to use for this knowledgesynthesis since our aim to find out what is known aboutchannelling enrolees to contracted care providers by healthinsurers is quite broad, we are not aware of any prior syn-thesis on this topic and a quality assessment of reviewedsources is not going to be conducted. However, it is pos-sible that selective contracting and channelling is presentin a particular country, but that there have been no scien-tific articles published about this. Therefore, in addition tothe literature search, we approached experts from severalEuropean countries, where health care reforms were intro-duced in the last decades, in order to collect information onselective contracting in their countries.

2.1. Scoping review search strategy and selection

The databases Pubmed and Embase were searched forthe scoping review. Before determining the search strat-egy, an initial broad search of the literature was conductedand a librarian was consulted. Since channelling or selective contracting is about the influence of health insurerson enrolees' choices for a care provider we decided tosearch for the four main topics: enrolees, choice, providersand health insurers. These, and their synonyms combinedwith OR, were combined with AND in the search strategy.See Table 1 for the search strategy in Pubmed. A similarsearch strategy was conducted in Embase. After the litera-ture search all duplicates were removed. Then, all articleswere judged firstly on the title alone. Then on the title, theabstract and the full text (Fig. 2), following the inclusioncriteria listed in Table 2. Additionally, relevant referencesand reports that we were already aware of were added. Thisresulted in a total of 42 References.references identi fied by sea rch (n=2315)references screened for relevance using title only (n=1931)references judged on title and abstract (n= 732)384 duplicates removed1199references removed as did not matchin-/exclusioncriteriaFull text of remaining articles assessed (n=170)562references removed as did not match in-/exclusioncriteria3 references already in poss ession131 references remov ed as did not match in-/exclusioncriteriaIncluded after literature search(n= 42)Total includ ed number of references: 464 references rece ived from exp erts Fig. 2. Flow diagram of review process.

2.2. Expert approach

Almost all the studies we found in the literature searchwere conducted in the US or the Netherlands. However, wewanted to collect information too from a number of Euro-pean countries who have also undergone health reforms.Therefore, in addition to the literature search, experts onhealth care system research in Belgium, Germany

andSwitzerland were asked for information on selective con-tracting and channelling of enrolees by health insurers.Experts were chosen based on their scientific expertise orwhere they work, for instance in a national knowledge cen-tre for health care. The experts were asked specifically toprovide information about selective contracting and chan-nelling enrolees to contracted/preferred care providers intheir countries. Do health insurers channel enrolees tocontracted care providers? If so, how? And what are theconsequences of channelling for enrolees? Furthermore,they were asked to provide documents or reports that couldbe helpful in answering these questions .

[TABLE 1] [TABLE 2] [FIGURE 2]

3. RESULTS

The flow diagram (Fig. 2) shows the process of exclud-ing papers. In the end, 46 papers were included in thisscoping review, including the papers that were sent by theexperts 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 willdiscuss whether selective contracting and channelling isconducted in different countries, the second part is abouthow channelling of enrolees is being done in differentcountries, thirdly, we will discuss enrolees perspectives onselective contracting, and lastly, consequences of selectivecontracting for enrolees will be addressed .

[TABLE 3]

3.1. Do health insurers channel enrolees to contractedcare providers?

Selective contracting and channelling seem to be car-ried out mainly in the US, but they are also present inSwitzerland, Israel and the Netherlands e.g. [3,10–12]. Inthe US, different types of health plans are available and theydiffer in how far they restrict freedom of provider choice.Health Maintenance Organisations (HMOs) are managedcare organisations that impose the most restrictions incare provider choice, while Fee-For-Service (FFS) is notmanaged, offering a free choice. HMOs seem to be ableto channel enrolees to contracted care providers, sinceenrolees take the list of contracted providers into accountwhen they choose a care provider [10,13,14]. McGlone et al.also emphasize that the reimbursement policy of the healthinsurer plays an important role in the selection of a pri-mary care provider (PCP) [15]. Other studies from the USfound that enrolees who chose an HMO that limits providerchoice, use different care providers than other enrolees[16,17]. A study by Kyanko et al. showed that most patientsvisit in-network providers. Only 8% of enrolees who wentto 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 apreviously known physician or because this physician wasrecommended by friends or family [18]. In the US, litera-ture on managed care organisations often describe broaderissues than specifically channelling enrolees to contractedcare providers. Those papers were not included in thisstudy. We find that the overall reason why enrolees arechannelled to contracted care providers successfully is thatthey want to avoid considerable out-of-pocket payments,since out-of-network providers are usually not reimbursedby their health plans.According to both an expert’s opinion and two papers,channelling enrolees to contracted providers

is also com-mon in Switzerland [19,20]. There, health insurance ismandatory and enrolees can choose between differenthealth insurers. In addition to regular health plans offer-ing a free choice of provider, health insurers also offersome sort of managed care plans. Enrolment in these man-aged care plans is growing (1,7% in 1996–12,1% in 2005[19,20] and 60% in 2013 (expert)). However, not all formsof 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 andoffer a panel of care providers that differ between healthinsurers. Enrolees are not reimbursed when they go to anon-contracted care provider [3]. Experts from the othertwo European countries that reformed their health carein the last decades, Germany and Belgium, say selectivecontracting and channelling patients to preferred, con-tracted care providers is rare. This view was supported bytwo papers that compare the health care markets of Euro-pean countries that have reformed health care in the lastdecades [3,12]. We found two studies from other countries,Saudi Arabia and China. In these papers, the involvementof health insurers in enrolees' choice of care provider wassolely that enrolees take into account the reimbursementof their health insurer when they choose a care provider[21,22]. We expect this to be the case in every countrywhere health insurers are allowed to select care providersand determine their own levels of reimbursement.In the Netherlands, where health insurers are supposedto contract care providers selectively in order to take uptheir role as prudent buyers of care, insurers are reluc-tant to implement selective contracting. The Dutch HealthCare Authority drew the same conclusion one year afterthe implementation of the Health Insurance Act in theNetherlands in 2006 [23]. The reasons for this are that thereis still uncertainty about the minimal level of reimburse-ment for enrolees who visit non-contracted care providers,there is a lack of transparency in the health insurance mar-ket and a lack of reliable quality indicators for health care.In addition many enrolees still value the advice of theirGP above all when they choose a care provider [23]. Evenby 2011, Boonen et al. found that health insurers are stillreluctant to implement selective contracting [11]. Theyargue that the most important reason for this is a cred-ible commitment problem; health insurers believe thattheir enrolees do not trust them to purchase good qual-ity care on their behalf. They also found that enrolees areunwilling to listen to their health insurers' advice on thechoice of care provider. However, this differs according tothe type of provider. Enrolees are more willing to listento their health insurer in relation to pharmacy or hospitalchoice and less when it comes to choosing a GP or a den-tist. Maarse et al. reviewed the results of the Dutch health care reform and found that selective contracting is mainlydone in pharmaceutical care. He also stated that enroleesdo not trust health insurers to purchase good quality careon their behalf [24]. However, the take-up of selective con-tracting and the implementation of incentives to channelenrolees to preferred or contracted providers has beengrowing strongly in the last years [12]. We see a growth inthe number of health plans in which selective contractingis practiced. This is especially true for health plans wherecare providers are selected for specific treatments, such ascancer treatments and hip or knee replacement surgery.Enrolees are given an incentive such as offering only par-tial reimbursement of healthcare costs when they go to anon-contracted care provider or a positive financial incen-tive, such as a financial bonus when a preferred provider ischosen [11].

3.1.1. Summary

There are differences between countries in the imple-mentation of selective contracting and channelling. Inthe US, Switzerland and Israel selective contracting ispractised, 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 contractingis growing, although health insurers are still reluctant toimplement this, since they fear their enrolees will notaccept this and change insurers.

3.2. How do, or how can, health insurers channelenrolees to contracted care providers?

We found nine studies that investigated ways to channelpatients 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 asmall financial incentive ($6 (generic)/$18 (brand) out-of-pocket cost savings per supply) to channel enrolees of 65years and older to an online pharmacy. This incentive wasfound to be ineffective. However, it did not reveal why. Theincentive could have been too low, but it could also be thatenrolees did not know about the incentive or were not able,or did not want to, use the online pharmacy. Age and dis-tance to the pharmacy were the most important predictorsof using the online pharmacy [29]. An article by Donelanand colleagues reports from a natural experiment whereenrolees were offered a telephone service to help themchoose a care provider. This service channelled enroleestowards choosing high quality care providers. The servicewas offered by the employer. Enrolees were very posi-tive about this service and most enrolees who used it alsofollowed the recommendations. However, many enroleeswere not aware the service existed. Furthermore, it isvery important that the information comes from a trustedsource [28]. Research from the Netherlands shows thatenrolees are unwilling to accept advice from their healthinsurer about which care provider to choose [11,26]. Will-ingness to accept advice from the health insurer is lowestfor the choice of a GP and dentist, followed by physiother-apist, pharmacy and hospital [11]. Boonen et al. studiedchannelling strategies on the choice of a pharmacy by con-ducting a discrete choice experiment and found that bothnegative and positive financial incentives could work tochannel enrolees to preferred providers. However, enroleesreact much more strongly to negative financial incentives(co-payments) than to positive financial incentives (dis-counts). Quality incentives, namely customer satisfactionratings, extended opening hours and the availability of aquality certificate, also have an effect on provider choice.Additionally, they found that status quo bias plays animportant role in the ability to channel enrolees to pre-ferred providers. Even though there are better optionsavailable, enrolees are reluctant to leave their current careprovider [26]. A natural experiment showed that evensmall and temporary incentives have an effect on phar-macy choice [27]. However, the larger the incentive, themore likely that enrolees choose the preferred pharmacyand more enrolees stayed with the preferred pharmacywhen the incentive was permanent [27]. Another natu-ral experiment studied the effectiveness of channelling tospecific hospitals for cataract surgery and varicose veinstreatment. The incentive was

exemption of paying thedeductible when visiting a preferred provider. It was foundto be effective for varicose veins treatment, not for cataractsurgery. Reason for this was probably that enrolees whoneed cataract surgery are usually older and more likelyto need care for other complaints as well. Therefore theywould use up their deductible anyway and would not ben-efit from this incentive. Varicose veins patients are usuallyyounger and therefore more likely to benefit from theincentive [33]. A discrete choice experiment by Boonenet al. shows that the impact of channelling incentives differsbetween different types of provider. For GPs, channellingincentives was less effective compared to pharmacies, mostprobably because enrolees have a more personal relation-ship with their GP than with their pharmacy. Status quobias is much stronger for GPs than for pharmacies. Thismeans that channelling enrolees to preferred GPs will bemore costly, but if it succeeds, it is also more likely thatthe enrolee will stay with that GP [25]. However, it is alsolikely that enrolees will not accept this, since, accordingto Sofaer and Hurwicz, loyalty to the care provider (GP) islikely to be higher than loyalty to the health insurer. In thisstudy, conducted in the US, authors conclude from a nat-ural experiment that most enrolees switched health planswhen their HMO cancelled the contract with their currentcare provider. They chose instead a health plan that doescontract with their current provider [32].

3.2.2. Tiered networks

Sinaiko researched channelling enrolees to preferredproviders in the context of a tiered network [31]. In a tierednetwork, enrolees have freedom of provider choice. Thecare providers are ranked by the health insurer on theirlevel of preference, based on their performance on cost-effectiveness and quality. The most preferred providersare ranked in Tier 1. When enrolees choose a provider inTier 1, they pay less or no out-of-pocket payments compared to when they choose a provider in a lower tier. Thelower the tier, the higher the co-payments. In a hypotheti-cal setting, Sinaiko shows that most enrolees (90%) wouldchoose a Tier 1 provider when the Tier 2 provider costs$10-35 more than the Tier 1 provider. However, when aTier 2 provider is recommended by a friend or family mem-ber, half of the enrolees would choose the Tier 2 provider.Even more enrolees would choose the Tier 2 providerwhen this provider is recommended by another physician.Channelling enrolees to the Tier 1 provider then wouldonly succeed when the co-payment of a Tier 2 provider ismuch higher ($290-440). The medical condition for whichenrolees needed to choose a physician also mattered. Co-payments were less important to people when they hadto choose a cardiologist for a heart condition, than whenthey had to choose a dermatologist for a routine skin check[31]. Scanlon et al. also researched channelling enroleesin a tiered hospital network, only they reported from anatural experiment. The subjects were employees, engi-neers 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 enrolees use aTier 1 hospital they did not need to pay any co-insuranceand their co-payment was lower. The results showed thatthis incentive worked, since enrolees who were exposedto the incentive were more likely to choose a safer hospi-tal compared to the group that was not. However, this wasonly true for the engineers, not the machinists. The engi-neers are higher educated and, therefore, they may havefound it easier to learn how to take advantage of this incen-tive. It is possible that the incentive will also work for themachinists, for instance if they are better informed aboutthe incentive and how to benefit from it,

but this is notclear [30]. A study on claims and enrolment data of a healthplan that included a tiered physician network found thatphysicians in the lowest tier had the lowest market shareof new patient visits compared to higher tiered physicians.Furthermore, tiering has the most effect when enroleesare looking for a new physician. The effect is absent whenenrolees already have a relationship with a physician [34].

3.2.3. Summary

Channelling enrolees to preferred or contractedproviders by using financial incentives seems to be mosteffective. Negative financial incentives are more effectivethan positive financial incentives. Other options areincentives related to quality. Furthermore, there is astrong status quo bias, which means that enrolees tend toprefer their current provider even if a better alternative isavailable. It is also possible in a tiered network to channelenrolees to preferred providers. Here, enrolees have free-dom of choice, but their health insurer ranks care providerson quality and price and when they choose a provider inthe highest tier (preferred) they have to pay lower out-of-pocket payments or co-insurance. This is also a negativefinancial incentive. The type of provider, the condition orthe health status of the enrolees, recommendations fromothers and also the ability of enrolees to understand thepreconditions of the health plan, may influence in how farenrolees can be channelled to preferred or contracted careproviders.

3.3. Enrolees' attitudes towards channelling by healthinsurers

3.3.1. Enrolees are negative about choice restrictions

We found research showing that in general enroleesthink negatively about restrictions in provider choice[24,35–45]. Allen researched, through telephone inter-views, customers' responses to three cost containmentstrategies for health care provision. Among these strate-gies was the use of preferred provider networks. Resultsshowed that customers are negative about this strategy.Younger people, people with lower social economic statusand non-white people were least negative about pre-ferred provider arrangements [35]. Schur and Dorosh alsoconducted a survey to study the acceptance of cost contain-ment strategies, among which was 'to choose a physicianfrom a list'. They also showed that enrolees were negativeabout this. Older people, people with ischaemic heart dis-ease, people with poor health status and enrolees of a FFShealth plan were most negative, and the uninsured, poorerpeople and enrolees already in managed care, were leastnegative [43]. Results from a survey conducted by Sakowskiet al. showed that, together with dissatisfaction with thecoverage of preventive services, dissatisfaction with choiceof providers is the largest predictor of enrolees´ı unwilling-ness to recommend their health plan to others [42]. In theNetherlands, it was found that health insurers are reluctantto implement restrictions in provider choice, because theyfear losing enrolees, since they believe that their enroleeswill not trust them to purchase good quality care on theirbehalf [11,24]. In previous research we conducted in theNetherlands we found that most enrolees (60%) are posi-tive that their health insurer would not contract low qualitycare providers. However, most enrolees (55%) also indicatethey would not want advice from their health insurer oncare provider choice, let alone have their health insurerrestrict their choice. Many enrolees say they would ratherchoose a care provider themselves and they question theintentions of the health insurer [46].

3.3.2. How to overcome this negative attitude?

In the US negativity about restrictions in provider choicehas led to the so-called 'managed care backlash', a col-lective resentment against managed care [45]. Because ofthis, HMOs started to increase their freedom of providerchoice, which resulted in an increase in co-payments andhigher premiums in order to keep health care afford-able [38,45,47]. A study from the US shows that 59% ofinsured employees are now willing to give up some free-dom of provider choice in exchange for lower costs [47].Enrolees with a low income (67%) were more likely to bewilling to give up some freedom of choice compared toenrolees with a high income (54%). Among chronically illenrolees, the percentage was 56%. However, a large numberof enrolees was not willing to give up freedom of providerchoice for lower costs and the conclusion was that pref-erences differ substantially amongst enrolees. Therefore, itis important that choice options are given [47]. In a report on selective contracting by the Dutch Health Care Author-ity, authors state that satisfaction with a restrictive healthplan is higher when enrolees have consciously chosen thishealth plan themselves, rather than it being assigned tothem, for instance when health insurers readily imple-ment it or, in the case of the US, when their employer onlyoffers a restrictive health plan [23]. Duijmelink et al. stud-ied the managed care backlash of the US to find lessonsfor Europe. One of these lessons includes giving enroleesa choice between types of health plans. Other things theyrecommend are providing enrolees with information aboutthe quality of care of providers and about managed care andthe effects of it [45]. Harris studied whether high quality ofcare could overcome the resistance of enrolees to restric-tions in provider choice. Results show that a high quality ofcare increases the willingness of enrolees to accept restric-tions in provider choice. However, for enrolees to acceptthis, the level of quality of care needs to be very high. It ismost likely to be too high to be attainable [48].

3.3.3. Summary

Enrolees are very negative about restrictions in providerchoice. However, since the out-of-pocket costs in the USwere rising with the implementation of more freedom ofchoice, more and more enrolees are willing to give up somefreedom of choice for lower co-payments. Also, enroleeswho chose a restrictive health plan, for instance to savecosts, seem to be more positive about their health plan.

3.4. Consequences of selective contracting for enrollees

3.4.1. Negative consequences

It was found that not having a choice, or having restric-tions in provider choice, has negative effects upon thepatient-provider relationship. This is because enrolees withrestricted choice of primary care provider (PCP) reportlower trust in their PCP [37,40,41,44,49,50] and lower satis-faction with their PCP [39,51]. Even when the physician wasnot very popular in general, enrolees who chose their ownphysician were always more satisfied than enrolees whowere assigned one [51]. HMO enrolees also report lowersatisfaction with their health care in general [40]. Selec-tive contracting also affects the way enrolees look at theirhealth insurer. Enrolees' trust in their health plan is lowerwhen there are restrictions in provider choice [44]. Further-more, enrolees are more likely to recommend their healthplan to others when they are satisfied with their PCP andwhen they have a choice of PCP [52]. Sinaiko found

thatwhen patients already have a relationship with a physicianand their health plan places their physician in the low-est 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 anout-of-network provider, and endure more administrativebarriers in when they are enrolled in a managed care organ-isation. Fitzgerald et al. studied the impact on patients tosee if they would be channelled to high-volume hospitalsand found that for most enrolees this would not resultin unmanageable travel distances. Except for patients inrural areas, who would sometimes have to travel further. Inurban areas, the choice of a low-volume hospital is associ-ated with lower socioeconomic status. Channelling to highvolume 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 selec-tive contracting on the quality of care that enrolees receive.Selective contracting seems to lead to better health carequality even though enrolees covered through HMO insur-ance assess their care as worse than those not insured withan HMO. Howard compared differences in quality betweenin-network and out-of-network providers, and found thatin-network providers have better outcomes. A reason forhealth plans to contract high quality care providers is thatpatients will be more likely to enrol when the provider net-work includes such providers. He also found that patientsinsured privately with restrictive provider networks aremore likely to register at hospitals with higher survivalrates [54]. Chernew et al. found that enrolees of HMOstravel farther to hospitals, but also that they receive betterquality of care [16]. Kemper et al. compare different types ofinsurance with regard to patients' use of services, access tocare, and assessment of care. Looking at the whole range ofmanaged care from completely unmanaged to highly man-aged, they found no proof of differences in unmet need ordelayed care, the use of hospitals, and in the use of surgeryand emergency rooms [41]. To be more sure of the effectsof selective contracting on quality of care in general, a morespecific literature search on this subject needs to be con-ducted.

3.4.3. Summary

The consequences of restrictions in choice are thatenrolees have less trust in their care providers and in theirhealth insurer. Furthermore, enrolees in managed careneed to travel farther for their care providers. It is howeverpositive that in-network providers seem to deliver bet-ter quality of care compared to out-of-network providers,which means that restrictive health plans contract goodquality care providers for their enrolees. On the other hand,the finding that enrolees in HMOs assess their care as worsethan those not insured with an HMO, shows that the neg-ative impact of restricting choice has a heavy impact onenrolees.

4. Discussion

In the theory of managed competition, selective con-tracting by health insurers is important. Health insurersare supposed to negotiate with care providers, both topromote improvement in the quality of health care andto control the costs. In order to have a strong bargain-ing position in negotiations with care providers, healthinsurers need to be able to channel their enrolees to con-tracted care providers. This scoping review was conductedto find out what is known about health insurers

channellingenrolees to contracted care providers. Overall, the resultsof this scoping review show that selective contracting ismainly practised in the US, but also in Switzerland andIsrael. In the Netherlands, it is increasingly being imple-mented. Enrolees are mostly channelled to preferred or contracted care providers through negative financial incen-tives such as co-payments. We also found that this is themost effective strategy for channelling patients to pre-ferred 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 lowto accept advice about the choice of care provider. Fur-thermore, enrolees are very negative about restrictions inprovider choice. The consequences of restricting choice arethat satisfaction with, and trust in, care providers and thehealth insurer diminish. Choice seems to be crucial in thisrespect. Enrolees are more satisfied with their health plansand care providers when they have chosen them them-selves instead of them being assigned by their employerand health plan, respectively.

4.1. Strengths and limitations

A strength of this scoping review is the very broad searchstrategy developed together with a librarian. This resultedin over 2000 references that were all assessed, in part, bytwo reviewers. Therefore, it is likely that few referenceswere missed. In addition, we asked experts in the field fortheir knowledge on the subject and for documents to addto our results. A limitation of this study is that we onlysearched for scientific papers, which could mean that wemissed grey literature such as reports. However, we alsoadded references from our own possession and experts toour search results, which were reports and not scientificpapers.

4.2. Knowledge gaps and future research

According to the theory of managed competition, selec-tive contracting and channelling enrolees to contractedcare providers is very important if a health care systembased on managed competition is to achieve its goals ofimproving the quality of care and containing costs. Sincethe results of this knowledge synthesis showed that chan-nelling enrolees is possible, but that enrolees are verynegative about this, the question that remains is: How canselective contracting and channelling be implemented ina way that is acceptable to enrolees? It was shown in thispaper that choice is very important to enrolees and thatenrolees are more satisfied with their health plan whenthey have chosen it themselves. This can be explained bythe Self Determination Theory (SDT), which states thatautonomy is one of the basic human needs [55,56]. But,under which conditions will enrolees choose a restric-tive health plan over a health plan with more freedom ofchoice? According to economic theory and the assumptionswhich underpin health care systems based on managedcompetition, enrolees are critical consumers who makerational choices [4,57]. The idea is that enrolees would wantto maximize their utility according to their preferenceswith the means they have available. Lancasters' theorystates that, instead of the good itself, utility is derived fromthe properties or characteristics, named attributes, of thegood [58]. Thus, enrolees need to weigh different attributesof health plans, such as coverage, freedom of choice andwhether their preferred care provider is contracted againstprice and other "costs", such as the time and effort that ittakes to change insurers. Research questions that need tobe answered would be: How much cheaper does a restric-tive 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 con-tracted hospital, play in this? For example, are enroleeswilling to travel further for a care provider in exchangefor a lower premium? Furthermore, it is expected thatpreferences for different attributes differ between enroleeswith different characteristics. For instance, the reviewedliterature showed that compared to enrolees with a lowerincome, enrolees with a higher income are more willingto give up some freedom of provider choice in exchangefor a lower premium or co-payments, while enrolees witha chronic condition are less willing to give up freedom ofchoice in exchange for lower costs, compared to health-ier enrolees. It would be interesting to look further intoenrolees' characteristics in combination with their pref-erences for types of health plans and the effectiveness ofchannelling incentives. Research questions could be: Underwhich conditions will different types of enrolees choose arestrictive health plan? And, for which enrolees will dif-ferent types of incentives be more effective? Determanet al., from the Netherlands, recently conducted a DCEand found that young and healthy enrolees are willing toaccept selective contracting when prices of such healthplans are lower than they are now. Also, older enrolees andenrolees in poorer health are not likely to choose a restric-tive health plan at all [59]. However, this is only one study,and travel distance to the nearest care provider, which isvery important to enrolees [60,61], was not included inthe analyses. Therefore more research is needed to findout how enrolees weigh different attributes of health plansagainst each other. Furthermore, we found that trust in thehealth insurer may be an important factor in the acceptanceof selective contracting. Enrolees supposedly do not trusttheir health insurer to purchase good quality health care. Alack of trust may thus be a factor that adds to the "costs" of arestrictive health plan. It is likely that enrolees with greatertrust in their health insurer will accept selective contract-ing more readily. This is confirmed by the findings of Beset al. [62]. Therefore, it is important that health insurersfocus on ways to restore or gain the trust of their enrolees.

4.3. Policy implications

The results of this scoping review are relevant to con-sider if selective contracting is going to be implemented.It is important to look further into how selective con-tracting and channelling can be implemented in such away that enrolees will accept it. Since this paper showedthere are many negative aspects to selective contractingfor enrolees, it is important too to consider other ways toimprove quality and reduce costs in health care systemsbased on managed competition. Because of the resentmenttowards choice restrictions, it may be better if health insur-ers use soft incentives, such as providing only advice toenrolees on choosing a care provider. While trust in healthinsurers is quite low, soft incentives are less likely to beeffective as a channelling method. However, trust may be built up over time, while financial incentives may lowertrust even further. Furthermore, policy that is effective inone country will not necessarily be successful in another.When looking at other countries in order to find solutionsto common problems, it is important to note that the degreeto which policy can be transferred between countries maybe hampered by contextual differences within the differ-ent health care systems. This often makes direct copying ofpolicy impossible, since policy needs to be adjusted to thespecific situation in a country [63,64]. For example, in theNetherlands before the insurance reform, enrollees wereused to free choice of care provider. This may make theswitch to restrictive health plans in the current health caresystem more negative for them compared to enrollees incountries where free choice was never de norm.

5. Conclusions

This scoping review shows that channelling enroleesto preferred or contracted providers is possible. In chan-nelling enrolees, negative financial incentives are mosteffective. However, these also have the most negative con-sequences for enrolees. There are other options to channelpatients to preferred or contracted providers such as qual-ity incentives or advice from the health insurer. However,these are less effective and for these options to succeedenrolees must first trust their health insurer. Currently,trust in health insurers seems to be too low to accept adviceon care provider choice. Enrolees are very negative aboutrestrictions in provider choice introduced by the healthinsurer. Restrictions in provider choice also have nega-tive consequences for satisfaction with, and trust in, careproviders and the health insurer. In order to implementselective contracting and channelling in a way acceptableto enrolees, research should focus on how health insur-ers can gain or restore trust enrolees have in them andhow people weigh different attributes of health plans. Theresults of this study provide a good starting point for furtherresearch as it sheds light on several knowledge gaps.

Conflicts of interest statement

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

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TABLES AND FIGURES

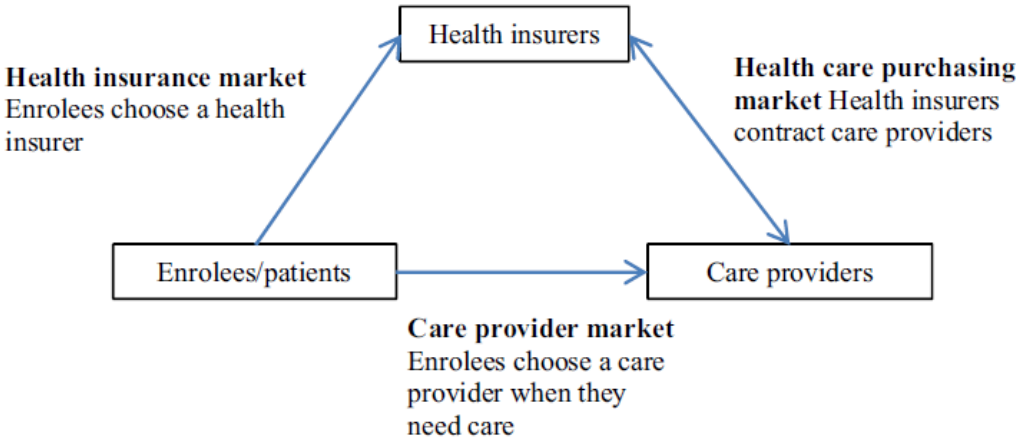

Fig. 1. Model of health care market in a system of managed competition.

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.

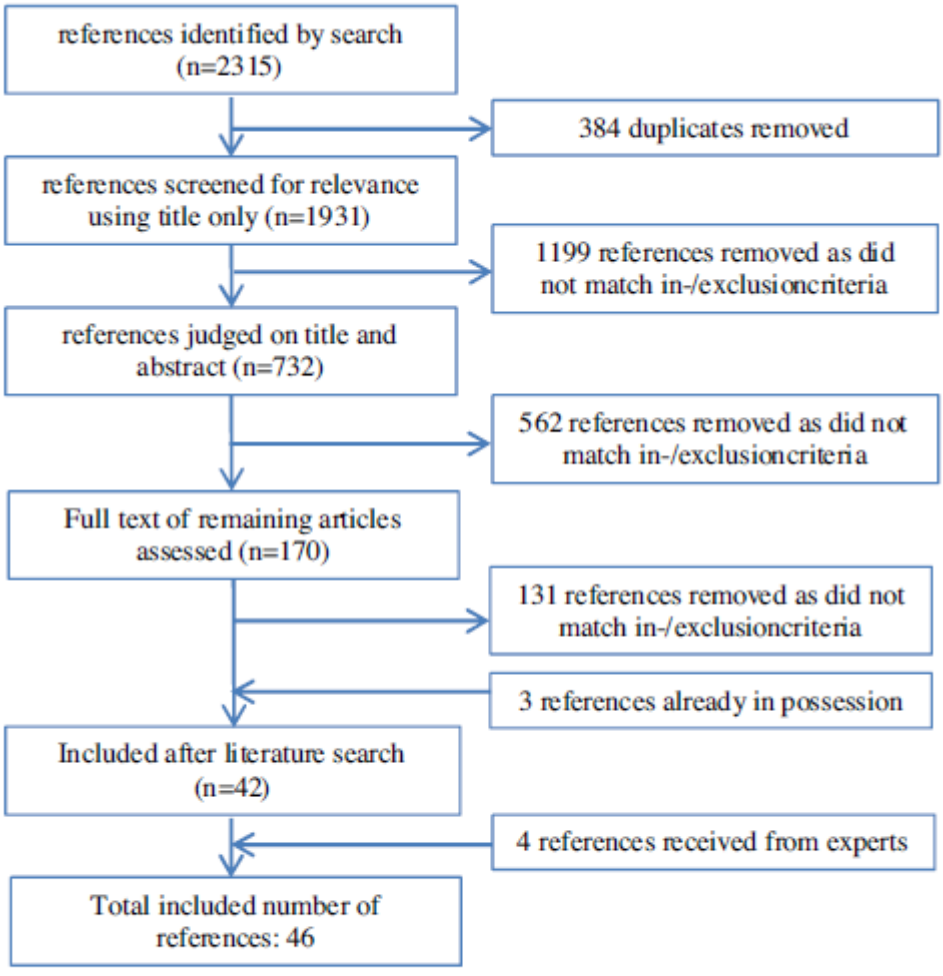

Fig. 2. Flow diagram of review process.

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 enrolees 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 enrolees 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
Schmittdiel, 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