

## University of Groningen

### The healthcare purchaser as a care chain orchestrator

Noort, Albert

DOI:  
[10.33612/diss.133147906](https://doi.org/10.33612/diss.133147906)

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2020

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*

Noort, A. (2020). *The healthcare purchaser as a care chain orchestrator: Healthcare system limitations and opportunities*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen, SOM research school. <https://doi.org/10.33612/diss.133147906>

#### **Copyright**

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

#### **Take-down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

*Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.*

## **Chapter 5. General discussion**

Everyone values access to good quality and affordable healthcare and therefore has high expectations of the healthcare purchasers who are responsible for managing the available budgets. However, the multitude of regulations, financial incentives and stakeholders surrounding healthcare purchasers complicate the way purchasers can meet these expectations. In this thesis, we have developed a better understanding of whether and how healthcare purchasing organisations can adopt an orchestrating strategy when purchasing chronic care services. The thesis furthermore explains how the market context shapes purchasers' strategies and actions. Finally, we have shown what improved chronic care delivery can mean for the wellbeing and care experiences of COPD patients as well as the cost consequences. The insights provided by this thesis can contribute to developing solutions on the policy and practice levels that can enable purchasers to drive a better task division and improved collaboration in chronic care chains.

In this final chapter, we will reflect on the main findings from the three studies reported in this thesis and discuss the scientific and societal contributions. Furthermore, we will discuss the limitations of our research approaches and findings, and offer suggestions for future research.

## **5.1 Main findings**

In the three studies presented here, we illustrate what drives, enables or limits healthcare purchasers, how their behaviour may change over time and what purchasing approaches mean for society and for the patients themselves. First, we show how the basic characteristics of public or private healthcare purchasing systems affect a purchaser's strategies and actions when managing chronic care. Second, when trying to improve task division and collaboration among chronic care providers, we show that the purchaser needs to deal with multiple stakeholders with often conflicting interests, goals and power. How these stakeholders shape the purchaser's institutional logics helps clarifying the purchaser's difficult position. Third, we illustrate how purchaser-provider collaboration can benefit the implementation and evaluation of chronic care improvement initiatives. Our evaluation and feasibility study of a home-coaching intervention for hospitalised COPD patients shows beneficial results in terms of health, wellbeing and costs.

### **5.1.1 Healthcare system characteristics shape purchaser strategies and actions**

Between-country comparisons show that purchasers need the right tools to drive better chronic care delivery. Such tools include quality monitoring, selective provider contracting and use of financial incentive schemes. However, it was unclear why purchasers in different countries develop different strategies despite the known set of tools they can choose from. In this case study, we compared how the healthcare system characteristics of England, Sweden and the Netherlands influence a purchaser's strategies and actions when managing chronic care chains. We found significant variations in the purchasers' clinical involvement, provider support, relationship management, focus (patient vs costs), use of power, chain management approach and time horizon. Based on our cross-case comparison, we concluded that the main healthcare system characteristics that drive these variations are: whether there is purchaser competition or not, whether the purchaser's governance type is clinical or managerial and whether patients have the freedom to choose between primary and secondary care. We concluded that it is not just a matter of insurance-based versus tax-based purchasing that determines how a purchaser pursues improved task division and collaboration among providers of chronic care. For example, purchaser competition and patient choice affect the power base of purchasers when negotiating with care providers. Purchaser governance, on the other hand, determines the knowledge that purchasers have, and also the relationships they build with care providers. Policymakers, care providers and the purchasers themselves need to take such factors

into account when trying to improve healthcare purchasing policies, and when jointly pursuing improved care delivery in practice.

### **5.1.2 Stakeholder pressures explain the purchaser's institutional logic**

As prescribed by institutional logics theory, organisational strategies are heavily shaped by the interests, power and incentives of their external environment. We adopted this as a theoretical lens to further improve our understanding of the development of purchaser strategies and actions. In this study, we recognise that, when pursuing better task division and collaboration between care providers, the purchaser needs to deal with various stakeholders. To understand how these stakeholders influence the purchaser's strategies and actions, we conducted a longitudinal case study on attempts to improve COPD care delivery. In our first step, we distinguished both an orchestrator's and a bookkeeper's institutional logic within the purchasing organisation. Subsequently we aimed to understand whether and how these two opposing logics were affected by pressures exerted by the various stakeholders. The main stakeholders identified were the insurance subscribers, the care providers and the government. We found that these stakeholders each exert a different set of pressures, related to costs, medical demands, inter-organisational relationships, uncertainty and public health demands. By analysing how the purchaser's actions, perceptions, beliefs and assumptions developed over time, we were able to deduce two mechanisms that explain why the purchaser initially adopted an orchestrator's logic, but subsequently fell back into their default bookkeeper's logic. First, we found that the different stakeholder pressures, which vary in strength over time, interact with each other in influencing the purchaser. Increased cost pressures, for example, affect the purchaser's sensitivity to relational pressure. Second, we saw that the purchaser's internal organisation itself affects how it deals with the various stakeholder pressures. For example, due to a lack of integration between primary and secondary care purchasing departments, the purchaser failed to sustain a chain-wide orchestrator's logic. Through these mechanisms, we now better understand how healthcare purchasers' strategies and actions develop and change over time. When pursuing improved task division and collaboration in care chains, stakeholders and purchasers need to be aware of these mechanisms and the roles that their own actions play.

### **5.1.3 Intensive home-coaching is feasible and can benefit COPD patient well-being**

Supporting and coaching chronically ill patients is known to be a promising approach to prevent further deterioration of COPD patients' health and wellbeing. Nevertheless,

studies report variable outcomes of coaching interventions. This variation likely relates to different intervention designs, for example in terms of the target patient group (mild versus severe, stable versus unstable, etc.) and characteristics of the intervention (intensity, location, coaching experience and specialisation). In this study, 170 patients with severe COPD, who had been hospitalised for a second time within one year, received home-coaching by a specialised respiratory nurse and were offered additional physiotherapy rehabilitation sessions. Six months after this intervention we found improvements in symptoms and functional status, nutritional status and patient activation, compared to the baseline measurements. Twelve months after the intervention started, improvements in symptoms and functional status, mental status (anxiety) and nutritional status were found. The reduction in hospitals readmissions was strongest for patients with low scores for health impairment and wellbeing and for those with a poor score on mental status (depression) at the start of the intervention. An analysis of insurance reimbursement data for 85 patients shows a reduction in the average annual hospitalisation rate of almost 20%: from 2.39 to 1.98. Further, this decline continues to 1.72 hospitalisations per patient per year in the second part of the year after the start of the intervention. Costs per patient decreased by €900 when taking into account the avoided costs of hospitalisation and ambulance services, and the increased costs for physiotherapy, outpatient visits and the coaching itself. Other chain-wide costs remained stable. Thus, it would appear that the coaching is cost-effective, while patient health and wellbeing improves or remain stable. Notably, we saw that the intervention was feasible in terms of implementing the coaching service, increased referral to and use of physiotherapy, the clinical use of patient-reported symptoms, wellbeing and awareness, costs of care plus patient and coach satisfaction. Based on our findings, we posit that coaching may be most beneficial for COPD patients with relatively minor respiratory distress and that it appears most effective to focus on those in that group where mental or psychosocial problems play a significant role. Further we saw that this may be best carried out by experienced, specialised pulmonology professionals who can provide continuous attention and engender trust. This study shows promising results from a joint effort by providers and purchasers to achieve improved chronic care delivery and we would encourage further trials and research on a larger scale.

---

## 5.2 Scientific contributions

### 5.2.1 Taxation versus insurance

Much has been written about the advantages and disadvantages of tax- versus insurance-based healthcare systems. Often it is argued that public purchasing systems lead to capacity problems while private systems increase access and improve quality, yet are more expensive (Figueras, Robinson et al. 2005, Folland, Goodman et al. 2013, Robinson, Jakubowski et al. 2005, World Health Organization 2000). In chapter 2 we give a more nuanced view on this matter. An advantage of a public purchasing system is that the purchaser has a monopoly and thereby a stronger position to negotiate with providers how they have to deliver care along the entire chain. Nevertheless, also other system characteristics play an important role. We find that in the public system of Sweden, a characteristic such as patient choice significantly reduces the influence of the purchaser. Another characteristic, clinical governance, can, on the other hand, strengthen the purchasing function through legitimacy and knowledge. Especially in the Netherlands, we observed a strong managerial culture that translates to a focus on costs and short-term financial results. In short, how purchasers manage care chains is determined by multiple different system characteristics and we have shown that three of these characteristics are key: the extent of competition between purchasers, the type of governance and the degree of patient choice. Besides that, it is important to realize that other factors determine whether the health of patients indeed improves. As we see in England, the national health expenses are significantly lower than in the Netherlands and Sweden, which is not related to the purchasing system itself. Hence, when seeking the right purchasing system we call for in-depth analysis and fair comparison between countries. Only then one can answer the question: how can you spend your resources in the right way to achieve accessible and high-quality care?

### 5.2.2 Externally and internally enabling strategic purchasing

Nowadays in most countries, there is an organisational split between healthcare purchasers and providers. The relationships between these parties are often argued to be tensed and characterized by conflicting incentives (Hughes, Allen et al. 2013, Maarse, Jeurissen et al. 2016, Raad voor de Volksgezondheid en Samenleving 2017). As a result of the studies presented in chapters 2 and 3 we now better understand how healthcare system characteristics affect these relationships. For example, the organisational structure and goals, but also who is responsible within the purchaser's organisation appear to play an important role. Furthermore, clinical involvement and responsibility is not only important from a medical, content-wise perspective but can

positively influence the purchaser-provider relationship as well. Chapter 2 shows that clinically informed governance can be encouraged by national policies, but purchasers themselves too can determine the amount of medical knowledge, as we found in chapter 3. In line with this finding, we illustrate the importance of the purchaser's own way of structuring its internal organisation. For example, communication and collaboration between the departments responsible for purchasing primary and secondary care are boundary conditions for a successful orchestration strategy. Lacking internal alignment may consequently damage relationships with providers.

Hence, stakeholder pressures and the purchaser's own internal organization jointly shape the emergence of the orchestrator's logic and falling back into the bookkeeper's logic. We herewith provide more understanding of the mechanisms and challenges of developing effective purchaser organisations to support strategic purchasing as highlighted by Klasa et al. (2018). Our longitudinal study gives a rich insight into how purchaser employees' perceptions and actions are shaped by external demands, but also by the purchaser's own internal organisation. Thereby we further expand mechanisms described by institutional logics scholars (Goodrick, Reay 2011, Greenwood, Raynard et al. 2011, Thornton 2002). Healthcare purchasing scholars often emphasize the importance of purchaser-provider relationships that support improvement of healthcare delivery (Robinson, Jakubowski et al. 2005, Hughes, Allen et al. 2013, Maarse, Jeurissen et al. 2016, Øvretveit 2003, Raad voor de Volksgezondheid en Samenleving 2017). Yet how to structurally achieve such relationships, how they are affected by health policy and regulation and by the purchaser's difficult position within the care chain is relatively unknown. This thesis contributes to these vital questions and forms a starting point to further address this complex matter.

An important insight derived in this thesis is that, although frequently addressed, it may not even be the most important question whether pay-for-performance, bundled payment or population-based payment works better than the other (Cattel, Eijkenaar et al. 2020, Douven, McGuire et al. 2015, Eijkenaar, Emmert et al. 2013, McWilliams, Chernew et al. 2015, Scott, Sivey et al. 2011). First of all purchasers and providers need to be willing to make new financial arrangements that require working collaboratively towards a fair sharing of risks and taking away possible perverse incentives. Extensive purchaser-provider interaction likely benefits the financial as well as clinical content of purchasing agreements (Dohmen, van Raaij 2019). Why the different parties struggle to make such agreements remains poorly understood. This is an important issue since we see that in many countries there are experiments on new incentive schemes, yet they have not been implemented on a large and structural scale. Based on our research we posit that it is important to create the right context to enable the

purchaser to develop an orchestrator's role. Such context means the right macro-financial incentives for purchasers and providers, and availability of the necessary relational, financial and analytical purchasing tools. Using these tools and learning from the benefits and disadvantages of them is an important way ahead to achieve the right care at the right place along care chains.

### **5.2.3 The right care at the right place for COPD patients**

It is widely acknowledged that support and coaching of patients with COPD can improve their well-being, health outcomes and reduce care use and costs (Lenferink, Brusse-Keizer et al. 2017, Zwerink, Brusse-Keizer et al. 2014). Which aspects of such interventions work best, to what extent and for which patient categories remains questionable, however. Our coaching intervention was aimed at patients re-hospitalised with a COPD exacerbation within one year. We found a reduction of 20% on the number of hospitalisations, one year after the start of the intervention leading to a cost saving of around €900 per patient per year. Despite earlier positive outcomes, the effects of studies on coaching and self-management support of COPD patients are highly variable (Jolly, Majothi et al. 2016, Lenferink, Brusse-Keizer et al. 2017, Zwerink, Brusse-Keizer et al. 2014). We think a key explanation of our findings is that our study was conducted by specialized, experienced respiratory nurses, instead of more generally trained coaches, as seen in the in-effective or less-effective studies. Our coaches moreover reported that an important element of the coaching was providing attention, safety and trust, which is confirmed by other studies (Hussey, Schneider et al. 2014, ZuWallack 2007). Another finding of our study is that patients with a history of frequent hospitalisations are less susceptible to coaching than patients with a low frequency. In line with this, patients who scored poorly on physical impairment and well-being (SGRQ) at baseline benefited less from coaching. We suggest that for patients who are in a severe state of their disease, it is very challenging to influence behaviour and thereby improve the physical status of patients through support and education. Conversely, patients with a poor depression score at the start of the intervention showed a stronger hospitalisation reduction. This confirms the view that personal and continuous attention through home-coaching by an experienced, familiar nurse is a prerequisite for success (Stevenson 2007).

Our findings suggest a dichotomy in coaching of COPD patients: preventing hospitalisations that are predominantly related to pulmonological status should be targeted in an early stage of the disease. When in a later stage of the disease, coaching appears most effective on those individuals where mental or psychosocial problems play a predominant role. Importantly, the reimbursement data in our study showed a slight decline in general practitioner (GP) care use, while COPD patients need timely



treatment and support in a primary care setting (Bellamy, Bouchard et al. 2006, Perez, Wisnivesky et al. 2012). This once more proves the importance of achieving the right care at the right place, which should be supported by the right health system context and by enabling healthcare purchasers to fulfil an orchestrator's role. In our study, the latter was not yet the case, as illustrated by the pattern of the emerging orchestrator's logic and subsequent falling back into a bookkeeper's logic (chapter 3).

### **5.3 Societal contributions**

#### **5.3.1 The right context for the right care at the right place**

Research on integrated care, care pathways or otherwise defined shows the potential for improving how we organise chronic care chains (Campbell, Hotchkiss et al. 1998, Martínez-González, Berchtold et al. 2014, Seys, Bruyneel, Deneckere et al. 2017, Van Houdt, Heyrman et al. 2013). Likewise, it is acknowledged that there is much room for improving how we diagnose and treat COPD patients, and prevent developing or worsening of the disease (Halpin 2019, Perez, Wisnivesky et al. 2012, Seys, Bruyneel, Decramer et al. 2017). To achieve improved chronic care, very often scientists and practitioners adopt new concepts, such as managed competition, triple aim and more recently value-based healthcare (Enthoven 1988, Berwick, Nolan et al. 2008, Porter, Kaplan 2016). The goals of these concepts are highly similar: improving care delivery by aligning care processes between providers and organising care around the patient, leading to higher population health, better care outcomes and lower costs. Also, comparable barriers and challenges to be overcome are mentioned: leadership support, better transparency and outcome monitoring and aligning financial incentives of providers, patients and purchasers. For a long time, it has been assumed that either tax- or insurance-based healthcare markets and its stakeholders will automatically develop ways to achieve the above goals and resolve current barriers. Alain Enthoven (1994) has predicted how healthcare purchasing organizations in a policy context of managed competition may drive improved care delivery:

*"Continuous quality improvement would lead to continuing annual productivity gains that would help to offset such expenditure-increasing factors as expanding technology and an ageing population. Over time, this process of continuous self-analysis and innovation would lead to new organisational designs, new management systems, new skill mixes and health professionals and new ways to involve patients in their own care." "Second, doctors would critically examine practice patterns, aided by new outcomes information systems, to evaluate the effectiveness of alternative therapies."*

The above optimism shows that it is now time to address the question of why healthcare systems still do not provide the preconditions to achieve the goal of the right care at the right place. Healthcare purchasing organisations play a key role in this and it has been the main goal of this thesis to better understand how they can develop themselves as a healthcare orchestrator. Based on the presented studies we firstly advise governments to create a health policy context – which is not necessarily based on competition – that supports the development of purchasing towards orchestration. Second, the purchasers themselves should critically rethink how they can create the right organisation for structural and sustainable care chain improvement. Both points will be discussed hereafter.

### **5.3.2 Government stewardship**

Healthcare policies and regulations inevitably shape the financial goals that purchasing organisations pursue. As illustrated in chapter 2, competition between purchasers creates a strong incentive for cost control in the short-term and only limitedly for quality improvement in the long-term. Also, the study presented in chapter 3 shows that cost pressures make the purchaser less open to health and relationship pressures. Governments can stimulate purchasers to pursue long-term care improvement. In insurance-based systems, one could, for example, think of a tendering system, where health insurers buy responsibility for a care region, or full cycle of care for more than one year. In tax-based systems, it is the government itself that can determine how much budget is spent on preventive care, the chronic care infrastructure or on short-term, urgent care needs. Policymakers furthermore need to strongly consider the power balance between purchasers, providers and patients. In the Netherlands, it is often argued that health insurers have too much purchasing power relative to providers. This may be the case when looking at small GP or physiotherapy practices, but for hospitals the situation is different. For health insurers, it is usually hard to shift resources from one hospital to another, or towards primary care providers. After all, it is the care professional and the patient who determine where treatment takes place, especially when there is high freedom for patients to choose providers. Furthermore, hospitals will resist budget reductions as they usually need to deal with already low financial buffers due to high capital and personnel expenses. Such resistance is often covered in the media, thereby leading to public outcry. Even in tax-based healthcare systems, we find that purchasers have difficulties to make agreements with providers on improving task divisions from a whole care chain perspective. By more actively guiding how providers should organise chain-wide care delivery and divide their tasks, governments can create clearer boundary conditions

for purchaser-provider negotiation. Herewith the current adversarial relationships can be steered towards a collaborative one.

Besides the importance of health policy, we posit that it is also the purchaser itself who can create better conditions for pursuing improved task division and collaboration in the long run. Besides law-determined governance types, how much medical knowledge there is in the organisation is highly influenced by the purchaser's vision and actions. In chapter 3 we show the importance of using clinical knowledge within the organisation. Moreover, we found that lacking intra-organisational alignment forms a barrier to adopt an orchestrator's institutional logic. When the purchaser intends to develop its purchasing strategy towards an active, chain-wide, long-term one it should thus make sure it takes an internally consistent approach. In that way, the purchaser will be better able to deal with the various, sometimes conflicting, pressures exerted by the surrounding stakeholders. Particularly managing the tensed purchaser-provider relationships can hereby be improved. As shown, build-up relationships can be harmed when the purchaser's actions are inconsistent, for example, due to lacking internal communication. On the positive side, when the purchaser has the knowledge and capacity to guide innovative projects, it supports decision-making and thereby the collaborative process. Our in-depth, longitudinal study herewith provides valuable insights for practitioners who often start ambitious improvement projects, but sadly also fail to create sustainable success. We, therefore, encourage care providers themselves who intend to start new initiatives to challenge purchasers on their strategy and ask them how they expect to support and sustain changes within their organisation.

### **5.3.3 Sustainably improving chronic care**

Our COPD coaching initiative indicates that personalised support improves the patient's care experience and well-being. Also, many patients needed fewer hospitalisations, thereby lowering care costs. Importantly, we find that caregivers need to determine for each patient whether it may be useful to provide such type of care. We found a clear distinction between patients where coaching is promising, like patients with predominant mental health problems, and those who may just be in such a bad physical state that frequent hospitalisation is inevitable. It is furthermore important to note that it is likely cost-effective to organise an intensive coaching intervention, requiring much nursing time, home visits and physiotherapy. This again shows the value of organising care from the perspective of the patient's needs and with a focus on long-term health improvement. Nevertheless, we also found that organising such intervention requires much effort of the different involved caregivers, purchaser staff and provider staff, thereby limiting the scale of the intervention. Moreover, due to

conflicting interests and viewpoints of the different providers and the purchaser, it appeared difficult to make structural agreements despite the promising outcomes. This fragmented, small-scale, non-sustainable approach of setting up care improvement is something that frequently occurs in the medical field (Doyle, Howe et al. 2013, Stirman, Kimberly et al. 2012). We, therefore, stress that care chain improvement requires an adequate organisation on forehand, with the right financial incentives for all stakeholders and agreements on the rights and obligations of the different parties, now and in the future. Governments and policymakers should demand and facilitate the organisation of care chains based on current best practices, which are omnipresent within and outside the field of COPD care.

### **5.3.4 Limitations**

This thesis has discussed two qualitative case studies and one quantitative feasibility study, with the main purpose of gaining a better understanding of the purchaser's role in improving chain-wide care delivery. Hereby we have found that several healthcare system characteristics drive purchaser strategies and actions that are beneficial for organising care chains (chapter 2). Also, we showed that when a purchaser pursues an orchestrator's role, it can benefit patient well-being at lower costs of care (chapter 3 and 4). Nevertheless, we need to acknowledge that it is risky to one-on-one translate healthcare purchasing policies and the associated purchaser behaviour to health outcomes and costs. Here, a *ceteris paribus* clause applies, meaning 'all other things being equal'. Several factors, such as population age, health behaviour, socio-economic circumstances, availability of pharmaceuticals or medical devices and macro healthcare spending highly determine the health and well-being of citizens. Although we indeed argue that a long-term, collaborative and clinical purchasing approach as found in England has the potential for improving chain-wide care delivery, we need to be careful in drawing conclusions on outcomes on health and costs. Similarly, the COPD coaching project as supported by the health insurer in the Netherlands is a positive example of purchaser involvement. Whether such a project is successful is highly determined by the professional skills of providers, regional and national clinical guidelines and regional demographic factors. Thus, this thesis illustrates beneficial circumstances that enable purchasers to orchestrate care chains, but we need to still critically think whether healthcare systems as a whole are beneficial for citizen's health. In chapter 2 we have limited ourselves to the healthcare systems of England, Sweden and the Netherlands. It was our main aim to establish which healthcare system characteristics are key in shaping the strategies and actions of purchasers. We have chosen three countries which differ in terms of their health policy and regulation and herewith we could indeed establish three key characteristics. Nevertheless, we

recognise that although England, Sweden and the Netherlands differ in terms of their purchasing system, they do have similar competition-based provider systems and high government involvement. Therefore there may be other countries with different healthcare systems that may reveal other relevant characteristics. For example, in the United States, government involvement may be lower while on the contrary, this may be higher in southern European countries. The same limitation on generalizability applies to chapter 3. Here, we have chosen one specific region where we knew in advance that the purchaser intended to drive better COPD care delivery. This region's Vanguard status provided financial and regulatory support to execute the purchaser's plans. Also regionally several providers appeared willing to contribute to the projects. These several circumstances make the case study a specific one and generalizing from it needs to be done with caution. We do believe, however, that the mechanisms by which stakeholders influence the purchaser's institutional logics are at least partly applicable in other settings. An example is the joint influence of cost- and trust-related pressures on the purchaser, but also the purchaser's internal response to it. This specific case study provides a better understanding of why in many healthcare systems small-scale care innovations are set up but are not continued on a structural basis.

The longitudinal study shows that intensively coaching COPD patients leads to a lower amount of hospitalisations due to exacerbations, while functional status, mental status, nutritional status and well-being improve or remain stable. The real-life study, however, lacks a control group. Hence, it remains uncertain what part of these effects is caused by the coaching itself, and to what extent it is attributed to natural disease variation. Likewise, conducting such real-life study inevitably led to natural drop-out due to patients who died during follow-up. Although we did distinguish the latter patient group from survivors, the missed measurements of patients who died may have influenced the study results. Another limitation is that we could not accurately measure variables such as smoking behaviour, physical exercise, lung capacity and medication use and adherence. Finally, the number of patients in this study was substantial but still limited the statistical power to test relationships between for example nutritional status, well-being and hospitalisations. Relationships between such variables may give more insight into the best approaches to improve care outcomes.

### **5.3.5 Future research**

Our findings indicate several opportunities for future research. We have mainly focused on the purchaser's role in managing care chains for patients with COPD. Since there is still much unknown about how people develop COPD and its treatment, this is a challenging disease that goes along with clinical uncertainty (Barnes, Burney et al. 2015). We believe the context of COPD has given us insights into the uncertainty that

healthcare purchasers need to deal with when managing their care chain. Nevertheless, we recommend to also study purchasing in the context of other chronic diseases where medical knowledge and clinical guidelines are more straightforward. An example is care for patients with Diabetes Mellitus I/II, where in the past years big steps have been made in medical knowledge and the translation into chain-wide care delivery (de Bakker, Struijs et al. 2012, Ellrodt, Cook et al. 1997). On the one hand, we expect that less uncertainty makes it easier for purchasers to make long-term financial agreements and support providers to improve care delivery. Still, we also think many of the challenges of chronic care delivery will remain, such as the conflicting financial interests between purchasers and providers and between different providers. Comparing our findings to other contexts may thus confirm some of the found mechanisms, but also further develop them.

In the presented case studies in chapters 2 and 3, we have chosen a predominant inductive research strategy. In our research we aimed to understand what drives purchaser strategies, actions and institutional logics, thereby going further than identifying and comparing the available tools given by governments. As few studies have taken this behavioural and organisational scope we deliberately took an exploratory approach, thereby allowing us to find new relevant healthcare system characteristics and ways of stakeholder influence. As a next step we suggest to use deductive research methods to further substantiate the described mechanisms and confirm or reject the propositions that we have given. Larger scale case studies and survey research could fit this goal. Survey studies may elucidate our proposed links between healthcare system characteristics, purchaser strategies and actions, stakeholder pressures and purchaser institutional logics. Unanswered questions are for example which type of stakeholder pressure has the strongest effect, in what way organisational culture plays an important role and whether organisational maturing of purchasers occurs. Answering such questions can further explain the pattern of emergence of the orchestrator's logic and falling back into the bookkeeper's logic.

With respect to the evaluation of the COPD coaching initiative, we want to emphasize, as other scholars have done before, to strictly demarcate the targeted patient group and the type of intervention (Lenferink, Brusse-Keizer et al. 2017, Zwerink, Brusse-Keizer et al. 2014). Our study focused on patients with severe and unstable COPD, with a history of frequent hospital admission. The coaching intervention was done at home and conducted by experienced respiratory nurses. Comparing this type of intervention to other setups in a controlled setting can provide further insights into how to best improve COPD disease-management abilities. Besides studying how to improve COPD care, we call for more research on how this can be structurally organised in practice. Much is already known about the value of delivering

the right care at the right place. Yet, why it is so difficult to organise the right financial incentives and achieve consensus between the different care providers and purchasers remains a challenging scientific and societal issue.

### **5.3.6 Concluding remarks**

This thesis has addressed how healthcare purchasers can contribute to the goal of achieving the right care at the right place. Many countries already have preconditions that enable healthcare purchasers to develop a long-term, chain-wide strategy. Nevertheless, several system characteristics, related to purchaser competition, governance and patient choice, continue to hinder orchestration. As such, it is not simply a matter of government versus market that determines if purchasers can fulfil their ambitious orchestrating role. Moreover, healthcare purchasers have to deal with conflicting demands and pressures from subscribers, providers and governmental bodies. Strong government stewardship is crucial in supporting purchasers to manage these different stakeholders so as to achieve effective and sustainable care chain improvements. Although we have illustrated how purchaser-driven improvements to care delivery can increase the wellbeing of many patients with severe COPD, it is only when the appropriate health system context is provided that patients and society can structurally benefit from such initiatives. In the current Dutch healthcare system, and in other countries, there is still a need to provide the circumstances that will enable healthcare purchasers to fulfil an orchestrating role within the care chain.