

# Reasons for merging and collaborating in healthcare: Marriage or living apart together?

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## Abstract

**Background:** Across OECD countries, integration between healthcare organisations has become an indispensable part of contemporary healthcare provision. In recent years, inter-organisational collaboration has increasingly been encouraged in health and competition policy at the expense of mergers. Yet, understanding of whether healthcare organisations make an active choice between merging and collaborating is lacking. Hence, this study systematically examines (i) healthcare executives' motives for integration, (ii) their potential trade-offs between collaborating or merging, and (iii) the barriers to collaborating perceived by them.

**Methods:** Early 2019, an online questionnaire was conducted among a nationwide panel of 714 healthcare executives in the Netherlands. Because of their strategic position within healthcare organisations as end-responsible managers, healthcare executives are especially suited to provide broad and in-depth knowledge on the internal and external processes and decisions. Three hundred thirty-seven Dutch healthcare executives completed the questionnaire (response rate 47%). This study sample was representative of the largest healthcare sectors in the Netherlands. In total, 137 mergers and 235 inter-organisational

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collaborations were reported. Both closed questions and open-ended questions were systematically analysed.

**Results:** Improving or broadening healthcare provision is the foremost motive for mergers as well as inter-organisational collaborations. When considering both types, reducing governance complexity is one of the decisive reasons to opt for a merger, whereas aversion towards a full merger and lack of support base within the own organisation convinced healthcare executives to choose for a collaboration. When comparing specific healthcare sectors, the overlap in pursued motives and sub-motives indicates that inter-organisational collaborations and mergers are used for comparable objectives. Only a small minority of the responding executives switched between both types of integration. Institutional barriers, such as laws, regulations and financing regimes, appear to be the most restricting for healthcare executives to engage in inter-organisational collaborations.

**Conclusions:** Our integral approach and systematic comparison across sectors could serve policymakers, regulators and healthcare providers in aligning organisational objectives and societal objectives in decision-making on collaborations and mergers. Future research is recommended to study multiple collaboration and merger cases qualitatively for a detailed examination of decision-making by healthcare executives, and develop an integral assessment framework for balancing collaborations and mergers based on their effects in the medium to long term.

#### KEYWORDS

collaboration, competition policy, decision-making, integration, merger

#### Highlights

- This study analysed 137 mergers and 235 inter-organisational collaborations in the Netherlands.
- Improving healthcare provision is the main objective for both types of integration.
- Institutional barriers restrict healthcare executives in collaboration.
- Case studies should focus on in-depth examination of decision-making.

## 1 | INTRODUCTION

Inter-organisational relationships in healthcare are high on the health policy agenda in order to tackle staff shortages, resolve fragmentation or adapt to increased and changing demand for care.<sup>1-3</sup> Broadly speaking, from a legal perspective, integration in healthcare can be achieved in two different ways: through a merger between two or more healthcare providers to form one organisation; or through an inter-organisational collaboration, in which independent healthcare providers retain their autonomy. These integration decisions are usually taken in a decentralised manner. Hence, healthcare organisations and their executives can decide what option suits them best. Aligning organisational objectives and societal objectives is thus the responsibility of healthcare organisations, but incentivising organisations to observe societal objectives can pose challenges for policymakers and regulators.

This challenge is particularly relevant for countries with a market-based healthcare system. Globally, market-based elements have been introduced on the healthcare provision side, such as in the publicly funded healthcare systems as the UK, Norway and Portugal<sup>4-6</sup> or on both the healthcare provision and healthcare purchasing side in Germany, United States, Switzerland and the Netherlands.<sup>6-8</sup> In general, the effects of inter-organisational collaborations and mergers differ substantially. For instance, theoretical evidence highlights that organisational and cultural unity is a critical precondition for full organisational integration, but is often complex to realise. This partly explains why many healthcare mergers do not yield the desired improvements in performance.<sup>9,10</sup> On the other hand, lower levels of integration in healthcare inter-organisational collaborations, directed specifically at solving specific problems, could sometimes be easier to achieve and more beneficial.<sup>3</sup> Furthermore, empirical evidence in healthcare suggests that a substantial share of mergers prove unsuccessful in terms of the cost and quality of care, and often turn out to be anti-competitive.<sup>11,12</sup> Changing notions on the desirability of integration in health systems have resulted in shifts in health and competition policy: in health policy, inter-organisational collaborations seem to be encouraged more to achieve integrated care and foster efficiency,<sup>2</sup> while for mergers, stricter controls are anticipated from the competition authorities.<sup>13</sup> Mergers will be prohibited for healthcare acquisitions in which one participant *ex ante* already holds significant market power within a specific region or product market. This legislative proposal also includes the requirement for healthcare providers to carefully consider other forms of integration.

Against this backdrop, research is inconclusive about whether a trade-off between mergers and collaborations is made in practice, and whether the motives for collaborating or merging of healthcare executives align with societal objectives relating to health policy and competition policy. We therefore aim to answer the following two research questions.

- RQ. 1** To what extent do the motives of health care executives differ between mergers and inter-organisational collaborations?
- RQ. 2** To what extent do healthcare executives make an informed choice between merging and collaborating, and if so which reasons or perceived barriers are decisive in this consideration?

The original contribution of this paper is twofold. First, decision making on mergers and inter-organisational collaborations has predominantly been studied separately, with the prime focus on hospital care.<sup>12,14,15</sup> However, anecdotal evidence suggests that in the Netherlands several hospital mergers have recently been abandoned and replaced by collaboration agreements.<sup>16</sup> This implies at least some degree of substitution between these types of integration. Insight into the relevant trade-off and the rationale across all healthcare sectors is lacking and previous approaches have failed to incorporate contextual factors.<sup>17</sup> Second, this study directly and systematically compares the motives of healthcare executives to merge or collaborate based on a representative nationwide study sample that includes all healthcare sectors. Outcomes of collaboration and mergers are generally complicated to compare and only become visible in the long run.<sup>18</sup> Furthermore, in decentralised systems, responsibility for considering organisational and societal interests rests primarily with the individual organisations. Regulators and policymakers can therefore easily lose sight of developments that are crucially important for the functioning of the health system. From a broader health

policy perspective, a better understanding of the underlying motives can therefore be helpful for assessing—and when necessary, rectifying—unwanted organisational behaviour and collusion.

This study adopts an explorative approach and is designed as a survey conducted in the Netherlands. We use insights provided by a large nationwide representative panel of Dutch healthcare executives who are serving as managers with final responsibility. The paper is structured as follows. In section two, we provide a framework that describes collaboration and mergers from the perspectives of organisational theory and competition policy. Section three explains the methodology used for this study. The results section is subdivided into the three themes: (i) motives for collaboration and mergers (Section 4.1), (ii) the trade-off between collaboration and merging (Section 4.2), and (iii) perceived barriers to successful collaboration (Section 4.3). Section five ends with a discussion and conclusion.

## 2 | THEORETICAL BACKGROUND

This section seeks to provide a basis for understanding and contextualising the similarities and differences between inter-organisational collaborations and mergers, including theory on motives, legal framework and policy developments. Providers working together in an arrangement can be described in terms of a network, integration, cooperation or collaboration activity and embodies a multitude of concepts and a wide variety of subtypes.<sup>19</sup> Throughout this paper, inter-organisational collaboration refers to a *'formal arrangement in which two or more organisations*. In our study, healthcare organisations are defined as medium-sized or large organisations [annual turnover  $\geq$  €15 million] that provide healthcare [hospitals, disability care, mental care, long-term care, GP care] *work together by integrating only a part of their activities*'.<sup>20</sup> Generally, mergers are easier to define due to the presence of a clear legal requirement. In this study, we define mergers as *'two or more previously independent organisations (that) consolidate into a single legal entity*'.<sup>14</sup> The term merger is used to describe both administrative and legal mergers, acquisitions and joint ventures.

### 2.1 | Overview of the literature

#### 2.1.1 | Theory on the motives for mergers

Research on the motives for mergers has primarily been conducted in the context of the hospital sector. Broadly speaking, theories on the motives for mergers can be clustered into reasons that relate to achieving efficiencies and quality gains, reasons that relate to improving market and bargaining positions, and reasons that relate to internal and external pressure. Examples from the first group mentioned in the literature are the reduction of labour costs and capital through operational changes or the concentration of care.<sup>21-23</sup> Examples from the second group include strengthening the competitive position of healthcare organisations with purchasers of care.<sup>24</sup> In other words, in the absence of fixed fees, increased bargaining clout can be used by healthcare providers to negotiate higher prices.<sup>25</sup> Reasons relating to external or internal pressure include clinicians' demands for higher surgery volumes, government induced cost-savings or mergers initiated by healthcare purchasers.<sup>26-28</sup> Besides the motives described above, mergers may also be driven by the desire to follow social norms or imitate the organisational behaviour of others.<sup>29</sup> Furthermore, policy developments and contextual factors play an important role in explaining mergers, as revealed by a study on hospital mergers by Fulop (2012) and more recently by Postma & Roos (2016) for mergers in most large healthcare sectors (e.g., hospital care, mental health care).<sup>14,30</sup> Based on the literature, it can be concluded that the process of merging in healthcare can best regarded as an interplay between all of the drivers mentioned above.

## 2.1.2 | Theory on motives for collaboration

Literature on healthcare organisations' motives for collaborating is highly fragmented because of the wide range of definitions and context specificity. In empirical studies, scholars have found that healthcare organisations collaborate in order to exchange knowledge and information.<sup>31,32</sup> This objective is also referred to as the learning theory, in which organisations use collaboration agreements to generate and transfer knowledge across organisations.<sup>33</sup> Joint delivery of services, providing a broader range of services and coordinating patient referrals are other motives related to the provision of healthcare.<sup>34,35</sup> These reasons are generally closely associated with the increased complexity of care needs from patients and clients.<sup>36</sup> Previous research also highlighted the fact that healthcare organisations can exploit economies of scale by pooling their staff or resources or increasing treatment volumes.<sup>37,38</sup> Furthermore, healthcare organisations can become involved in collaborations to maintain or improve their financial performance.<sup>39,40</sup> As with the motives reported for mergers, collaboration can also be driven by the goal of attaining greater market power or collusion for the participating organisations.<sup>35,41</sup> Generally, horizontal collaboration within the same product market provides the greatest opportunity for anticompetitive conduct. Besides internally driven motives, externally driven motives and contextual embedding play a pivotal role, such as increased competitive forces.<sup>1,42</sup> However, from empirical evidence it follows that these motives based on strategic choice theory were found to play smaller role in the understanding of collaboration formation.<sup>43</sup>

## 2.1.3 | Barriers to collaboration

Insight into the barriers to collaboration is essential to policy designed to foster successful collaboration. Overall, different categories of barriers can be distinguished in literature.<sup>32,44</sup> Firstly, there are institutional barriers, including a lack of integrated information systems and medical records, different reimbursement systems in different sectors and boundaries caused by laws and regulations.<sup>17,19</sup> A second group of barriers relates to cultural differences between executives or organisations involved in collaboration and including inter-professional conflicts and differentiated managerial contexts. Furthermore, it is found that collaboration that includes partners from different sectors often lead to more complexity due to heterogeneous cultures and values.<sup>1,14</sup> The third category consists of reasons that relate to diverging interests between organisations, such as competitive pressures. These can be particularly relevant in horizontal collaboration, where collaboration and competition occur simultaneously.

## 2.2 | Legal framework and competition enforcement

In market-based healthcare systems, where providers are expected to compete, scrutiny and enforcement of competition rules are an important part of safeguarding the public healthcare interest.<sup>45,46</sup> In the Netherlands, collaboration agreements and mergers between companies—including healthcare organisations—are assessed under the Competition Act (*Mededingingswet*), which came to effect in 1998. It can be regarded as the Dutch equivalent of the Treaty on the Functioning of the European Union [TFEU] 1957.

The regulatory framework for mergers is laid down in Article 34 and beyond of the Dutch Competition Act. It encompasses the obligation to notify the Netherlands Authority for Consumers and Markets (ACM) of intended mergers. Only mergers that involve a certain turnover threshold are notifiable, but for the healthcare sector, the Competition Act stipulates lower turnover thresholds than for other sectors. These stricter thresholds were implemented with the aim of protecting competition in the immature healthcare market. ACM has issued guidance to clarify the process of merging. For instance, by providing guidance on the demarcation of product markets and by researching the effects on price and volume (2016) and quality of care (2017). In contrast to merging, collaboration does not require ex-ante approval. That is, approval prior to establishing a collaboration. Moreover, the possibility

for an ex-ante exemption by ACM has been abolished.<sup>47</sup> Collaboration includes a wide range of different types of integration that stop short of a merger. The legislation on collaboration is set out in Article 6(1) of the Competition Act, which is largely based on its European counterpart (Article 101, TFEU). This stipulates, amongst others, the prohibition of forming anti-competitive agreements and cartels between organisations. Inter-organisational collaborations may be deemed impermissible if collaboration is anti-competitive, or if it leads to anti-competitive conduct or outcomes.<sup>46</sup> The prohibition of cartels is an ex-post instrument. This means that it can be applied after the conduct, not beforehand. It allows for continuous monitoring for potential anti-competitive conduct, and corrective action when necessary.<sup>23</sup> Fines can be imposed for anti-competitive behaviour such as market sharing, price-fixing or imposing entry barriers. It is important to note that the prohibition of cartels allows for agreements that improve social welfare. Organisations that collaborate are obliged to self-assess whether their collaboration falls under the scope of the Cartel Prohibition and, if their collaboration is (potentially) anticompetitive, whether the exemption criteria are met—that is, that the benefits for patients or clients outweigh the anti-competitive drawbacks. When relevant, healthcare organisations need to substantiate the intended efficiencies convincingly.<sup>48</sup>

## 2.3 | Policy developments

In view of the focus of this study, two policy developments that could influence the specific trade-off between collaboration and merging deserve specific attention: (i) anticipated stricter merger control, and (ii) increased opportunities for collaboration in health policy and competition policy.

First, the adverse outcomes of healthcare mergers are acknowledged in merger policy.<sup>49</sup> Mergers have often failed to live up to expectations in terms of quality improvements.<sup>12</sup> In the US, for example, hospital mergers have not resulted in significantly lower readmission or mortality rates while patient experiences have worsened.<sup>50</sup> At the macro level, healthcare markets have become more consolidated through mergers and higher concentration is often associated with higher prices for hospital care.<sup>25,51–53</sup> Given the doubt concerning the desirability of mergers, it has been suggested that further consolidation of the healthcare market should be avoided<sup>54,55</sup> and, in response, a stricter approach towards hospital mergers has been introduced. For example, until 2015 all hospital mergers in the Netherlands had been approved.<sup>54</sup> The same holds for other European countries, such as France.<sup>56</sup> In the United States, for example, the Federal Trade Commission prevailed in four recently litigated cases of mergers between healthcare providers, and as a result several other healthcare providers have abandoned planned mergers.<sup>49</sup> Comparably, abandonment of mergers has been reported in the Netherlands.<sup>57</sup> In the Netherlands, following the first prohibition of a merger in 2015, stricter hospital merger enforcement was announced by the Dutch competition authority in 20 December 2017.<sup>13</sup> Stricter legislation is being prepared to back up this approach.<sup>58</sup> Second, we are seeing an increased tendency to promote collaboration in healthcare across a number of countries. For instance, in the United States, Accountable Care Organisation models have been implemented to link providers from different sectors.<sup>59</sup> In France, providers are incentivised and even mandated to coordinate care via territorial clusters.<sup>60</sup> In the NHS, a landmark policy document is the 5-Year Forward View, which outlines the need for organisations to cooperate instead of competing.<sup>61</sup> In April 2022, The Health and Care Act 2022 has been implemented in the Netherlands. The Act removes existing competition rules, formalises integrated care systems and aims to simplify joint service delivery.<sup>62,63</sup> This also applies to competition policy: competition authorities are increasingly recognising that collaboration between competitors can have beneficial effects in market-based systems.<sup>64</sup> In the Netherlands, for example, it has been suggested that market sharing or centralisation agreements should be allowed in order to facilitate collaboration as an alternative to mergers for specific types of highly complex hospital care.<sup>65,48,65</sup> The Dutch competition authority also accepts collaboration as long as certain conditions are met, for instance as part of the '*Juiste Zorg op de Juiste Plaats*' policy plan (Right Care in the Right Place, *JZOJP*), which aims to reduce the cost of expensive care by moving the point of care delivery closer to people's homes and replacing care delivery with other forms such as

e-health.<sup>66</sup> In the UK, the Competition and Markets Authority (CMA) has also recognised and emphasised the need for more collaboration between providers and the reduction of the legal provision of competition.<sup>67</sup>

### 3 | METHODS

#### 3.1 | Data collection

An online questionnaire was distributed to 714 Dutch healthcare executives to investigate their motives and considerations regarding inter-organisational collaboration and/or mergers. Healthcare executives are generally well-informed about and involved in the internal and external decision-making processes associated with initiating collaboration and mergers. The healthcare executives were contacted through the Dutch Association of Healthcare Executives (NVZD), which is the representative body for healthcare executives in the Netherlands. On 1 January 2019, 714 healthcare executives were members of the NVZD, representing 65% of healthcare executives working for medium-sized or large healthcare organisations (annual turnover  $\geq$  €15 million). Earlier research, as well as internal documents on the healthcare organisations included in the NVZD sample demonstrated the representativeness of the panel for Dutch healthcare executives.<sup>68</sup>

Prior to distributing the survey, it was piloted among four healthcare executives from different healthcare sectors and five academic researchers in the field of governance and healthcare management. This pilot was followed by personal interviews with the four pilot healthcare executives to check the comprehensibility and validity of the survey. On 18 January 2019, the hyperlink to the online questionnaire was distributed among the sample. Healthcare executives were informed about the research by NVZD's bi-monthly newsletter. In this announcement, the NVZD-members were offered the chance to opt-out, which none of the executives did two reminders were sent out on February 1st and February 8th. The survey was closed on 11 February 2019. A total of 337 healthcare executives filled out the questionnaire, resulting in a response rate of 47%. This study sample was representative of the largest healthcare sectors in the Netherlands: hospital care, nursing homes, mental care and disability care. The answers were processed anonymously, at the level of both the healthcare executive and the healthcare organisation.

#### 3.2 | Questionnaire

In the questionnaire, we asked healthcare executives to answer the questions with respect to the most recently initiated collaboration and/or merger that their organisations had been involved in<sup>14</sup> following a previous study by Postma and Roos [2016], we used a 7-year recall period that is, 2012–2018. The case-based approach contributed to a more detailed and accurate understanding of the decision-making process in specific collaboration and mergers, and aimed to limit recall bias by elaborating one specific case per executive. The questionnaire was developed on the basis of earlier research among Dutch healthcare executives on the motives for mergers conducted by Postma and Roos (2016).<sup>14</sup> Their subdivision of primary motives and secondary motives, which was also adopted in this study, was based on earlier research on mergers<sup>24,69</sup> and a discourse analysis of frequently mentioned motives in Dutch professional literature and news outlets. In our study, we asked healthcare executives to assess the primary motives of healthcare provision, efficiency, market and bargaining position and pressure from internal or external stakeholders. As a follow-up question, secondary motives were presented to the executives once the corresponding primary motive had been selected. Each secondary motive was measured as a single-item question on a three-point scale consisting of 'not important', 'important' and 'very important'. We combined the 'very important' and 'important' category based on the previous study by Postma and Roos (2016). Literature research and discourse analysis was used to formulate the questions relating to choosing between collaborating and merging (Section 4.2) and barriers to collaboration (Section 4.3). An overview of the questions belonging to each secondary theme is shown in Box 1. Section 4.2

only includes data from the subset of the population that actually altered their decision on merging or collaborating ( $n = 65$ ). In addition to the categorical questions relating to motives, trade-offs and barriers, respondents were given the possibility to provide additional remarks in open text fields.

### BOX 1: Overview of the main survey questions and secondary samples included.<sup>a</sup>

	Characteristics & motives	Trade-off	Experienced barriers
<b>Main question</b>	<i>What was (were) the most important motive(s) for engaging in the most recent merger/ inter-organisational collaboration?</i>	<i>What was (were) the most important reason(s) for pursuing inter-organisational collaboration instead of a merger?</i>  <i>What was (were) the most important reason(s) for pursuing a merger instead of inter-organisational collaboration?</i>	<i>Do you experience barriers to collaboration in the Dutch healthcare sector<sup>a</sup></i>
<b>Question posed to whom?</b>	Healthcare executives involved in an inter-organisational collaboration and/or merger ( $n = 289$ )	Healthcare executives involved in a merger which switched to an inter-organisational collaboration (or vice-versa) ( $n = 65$ )	All healthcare executives ( $n = 337$ ) (including healthcare executives not involved in a merger and/or inter-organisational collaboration)

<sup>a</sup> Applies to collaboration in general, not necessarily to the most recent agreement.

## 3.3 | Analyses

The answers to closed questions were presented as percentages to assess the similarities and differences between mergers and inter-organisational collaborations. Here, the three-point scale for motives and secondary motives were dichotomised into 0 = not important and 1 = (very) important. Chi-square tests of independence were performed to examine significant differences within subgroups ( $p < 0.05$ ). Univariate logistic regressions with clustered standard errors were carried out to assess the differences between mergers and collaboration for the four primary motives.

Open-ended answers on secondary motives were included in a text analysis in order to exemplify or supplement closed questions. 49% of the executives involved in a merger provided one or more open answers; 34% of the executives involved in collaboration provided one or more open answers. Consequently, a total of 336 answers were used, consisting of 187 answers on collaboratives and 149 answers on mergers.

A two-step analysis was used to analyse the open-ended answers. First, topic modelling and corpus statistics in ConText 1.2.0 were investigated in order to uncover the salient topics based on sets of words. Second, those sets of words were inductively coded based on the recurring themes from the first step. A total of 19 codes emerged from this preliminary analysis. In some cases, two codes were assigned to one open answer. Based on the absolute number of codes assigned, Table 3 shows the most important themes for collaboration and mergers. For the questions relating to trade-offs and barriers, the small number of open-ended answers meant that further textual analysis was not possible. However, examples of answers were presented in the main results to provide a more detailed picture of the descriptive results.

## 4 | RESULTS

### 4.1 | Comparison between mergers and collaboration

The key characteristics of healthcare mergers and collaboration identified in our sample are outlined in Table 1. At the aggregate level, when all the responses are assessed, it is clear that most healthcare organisations have



been active in either inter-organisational collaborations or mergers (84%). Of all healthcare executives, 28% indicated that they were involved in both an inter-organisational collaboration and a merger during the years 2012–2018.

If we focus on the directions of mergers (see Box 2), most appear to be horizontal (63%); meanwhile, among inter-organisational collaborations ( $n = 235$ ), only a third can be defined as horizontal (34%). Comparing the two types of integration with regards to the number of organisations involved, it becomes apparent that collaboratives generally consist of more organisations than mergers. Nearly four-fifths of the mergers only involve one other organisation (79%), whilst 43% of the inter-organisational collaborations involve more than five organisations. Mergers involving four or more organisations are scarce (3%).

TABLE 1 Background characteristics of the healthcare organisations 2012–2018.<sup>a</sup>

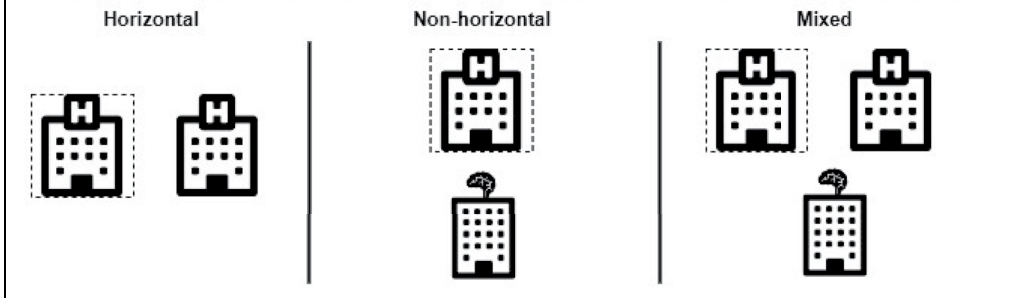
	N	%
Entire panel ( $n = 337$ )		
Involved in a merger/inter-organisational collaboration?		
Yes/yes	96	28%
Yes/no	45	13%
No/yes	141	42%
No/no	55	16%
Involved in a merger ( $n = 137$ ) <sup>b</sup>		
Resulted in an actual merger?		
Yes	79	71%
No	40	29%
Direction of merger		
Horizontal	86	63%
Non-horizontal	16	12%
Mixed	35	26%
Number of organisations involved (including own)		
2	106	79%
3	24	18%
4 or more	4	3%
Involved in a collaboration ( $n = 235$ ) <sup>b</sup>		
Direction of collaboration		
Horizontal	80	34%
Non-horizontal	79	34%
Mixed	76	32%
Number of organisations involved (including own)		
2	57	24%
3	35	15%
4	42	18%
5 or more	101	43%

<sup>a</sup>Unit of observation is the healthcare executive, not the healthcare organisation.

<sup>b</sup>Number of observations is lower compared to data described for the entire panel due to missing data for main motives.

## BOX 2: Directions of mergers and inter-organisational collaborations.

Among mergers and inter-organisational collaborations, there are three relationship directions. First, integration can involve organisations belonging to the *same* healthcare sector, such as an inter-organisational collaboration or mergers between two or more hospitals. We refer to these as ‘horizontal’ integration. Second, ‘non-horizontal’ integrations is defined as inter-organisational collaborations or mergers with a partner (or partners) from a *different* healthcare sector upstream or downstream the healthcare provision chain. For instance, between a hospital and mental care organisation. Third, ‘mixed’ integration involves both a partner from the *same* healthcare sector as well as at least one partner from a *different* healthcare sector, such as a merger or collaboration in which a hospital teams up with both another hospital and a mental care organisation.



In order to understand the objectives of inter-organisational collaborations and mergers, we present the four main motives for both types of integration. From Table 2, it is clear that for both types, improving healthcare provision is the primary motive mentioned. However, inter-organisational collaborations tend to be significantly more focused on healthcare provision (86%) compared to mergers (72%), while strengthening the market and bargaining position is a significantly more important motive in mergers than in collaboration. A closer examination of the direction of integration (i.e., horizontal, non-horizontal, mixed) also reveals some differences. The improvement of *healthcare provision* is mentioned as an important driver in nearly all mixed inter-organisational collaborations (95%), compared to just 74% of mixed mergers. Achieving *efficiency* is significantly less important among horizontal integration than non-horizontal and mixed integration. Overall, healthcare executives do not seem to be significantly influenced by internal and/or external pressure in decision-making around integration, especially when they opt for a merger.

The results obtained from the text analysis are shown in Table 3. Nineteen codes defining the reasons for collaborating or merging emerged from the analysis of open-ended questions. The assigned codes were: coordination of healthcare supply, strengthening organisation position, support of weak organisation, staffing issues, IT and innovation, regionalisation, safeguard continuity of care, adhere to needs patients/clients, quality issues, scale, scope, coordination of healthcare logistics, research, external pressure, governance, coordination with other parties, Right Care in the Right Place [JZOJP], efficiency, to learn from each other. Overall, from the assigned codes, it can be seen that reasons related to the provision of healthcare supply are predominant among mergers, such as the development of new care packages and the expansion of services. For example, one executive involved in a merger mentioned that the motive was ‘to realise cohesive care packages’. Conversely, in inter-organisational collaborations the coordination of the diverse tasks and obligations within a care pathway (coordination of healthcare logistics) plays a dominant role; this reason was hardly mentioned in relation to mergers. With regards to the coordination of healthcare logistics,

TABLE 2 Primary motive categories for mergers and collaborations, subdivided by direction (horizontal, non-horizontal, mixed).

	Mergers			Inter-organisational collaborations			
	Total (n = 137)	Horizontal (n = 86)	Non-horizontal (n = 16)	Mixed (n = 35)	Horizontal (n = 80)	Non-horizontal (n = 79)	Mixed (n = 76)
Healthcare provision	72% <sup>b</sup>	70%	75%	74%	87%	87%	95%
Efficiency	41%	34% <sup>a</sup>	44% <sup>a</sup>	49% <sup>a</sup>	36% <sup>a</sup>	52% <sup>a</sup>	59% <sup>a</sup>
Market/bargaining position	50% <sup>b</sup>	49%	31%	54%	34%	29%	30%
Pressure from internal and/or external stakeholders	12%	12%	13%	11%	21%	19%	23%

<sup>a</sup>Significant differences between the direction (horizontal, non-horizontal, mixed) of integration at the 5% level, separately tested with the Chi-square test for collaborations and mergers.

<sup>b</sup>Significant differences between mergers and inter-organisational collaborations at the 5% level (regardless of direction of relationship). Univariate logistic regressions were performed to assess these differences between mergers and collaborations for the four main motives. Analyses were carried out at the organisational level rather than the executive level. Collaborations and mergers were included separately. Since 96 organisations were involved in both a merger and an inter-organisational collaboration, the number of observations increased. Standard errors were clustered at the healthcare executive level to correct for intra-group correlation (i.e., when the same healthcare executive was involved in both an inter-organisational collaboration and a merger).

TABLE 3 Top seven assigned codes emerging from text-analysis on open-ended responses (number of code counts between parentheses, examples of responses in italic).

Mergers	Inter-organisational collaborations
Coordination of healthcare supply (21) <ul style="list-style-type: none"> <li>- Realising integrated packages of care</li> <li>- Providing a comprehensive network of geriatric care</li> </ul>	Staffing issues (23) <ul style="list-style-type: none"> <li>- Integrating education in a tight employment market</li> <li>- Maximising and smarter use of a shrinking workforce</li> </ul>
Strengthening organisational position (19) <ul style="list-style-type: none"> <li>- Increasing group power of GPs</li> <li>- Negotiating power vis-a-vis health insurers</li> </ul>	Coordination of healthcare supply (22) <ul style="list-style-type: none"> <li>- Integrated range of care without waiting lists</li> <li>- Geographical distribution of treatment supply</li> </ul>
Support for a weaker organisation (18) <ul style="list-style-type: none"> <li>- Request by smaller party for a merger</li> <li>- One of the organisations was too small to continue independently</li> </ul>	IT and innovation (17) <ul style="list-style-type: none"> <li>- Organising exchange of information</li> <li>- Opportunities in e-Health</li> </ul>
Staffing issues (15) <ul style="list-style-type: none"> <li>- Professionalising expertise and education of GPs</li> <li>- Reducing workload of caregivers</li> </ul>	Coordination of healthcare logistics (16) <ul style="list-style-type: none"> <li>- (Partly) resolving bottlenecks in care provision after decentralisation</li> <li>- Improving patients' care pathways</li> </ul>
IT and innovation (13) <ul style="list-style-type: none"> <li>- Improving joint investment and innovative power</li> <li>- Improved utilisation of IT and other investment</li> </ul>	Regionalisation (13) <ul style="list-style-type: none"> <li>- Regional specialisation</li> <li>- Organising care closer to patients' homes</li> </ul>
Regionalisation (12) <ul style="list-style-type: none"> <li>- Geographical coherence</li> <li>- Safeguarding care in the entire region</li> </ul>	Quality issues (12) <ul style="list-style-type: none"> <li>- Adequate quality accreditation</li> <li>- Improving quality of care supply</li> </ul>
Safeguard continuity of care (10) <ul style="list-style-type: none"> <li>- Continuity of treatments for youth and adults</li> <li>- Safeguarding valuable care of merger partner</li> </ul>	Adhere to needs patients/clients (10) <ul style="list-style-type: none"> <li>- Increasing participation opportunities for clients</li> <li>- Improving of the well-being of clients living in the earthquake area</li> </ul>

one executive involved in an inter-organisational collaboration mentioned '*to be more informed as a care giver about the patient*'. Another executive indicated that collaboration aimed to '*solve the bottlenecks caused by decentralisation*'. Healthcare executives describe *healthcare logistics* as the coordination and alignment of tasks. Another difference between the two types of integration that emerged from the textual data analysis concerns the themes '*strengthening organisation's position*' and '*supporting a weak organisation*'. The former theme includes motives like '*strengthening the group power of GPs*' and '*negotiating power vis-a-vis health insurers*'. In accordance with the survey results obtained from the closed questions, many executives involved in a merger mentioned these topics, while these themes were hardly mentioned at all by executives involved in inter-organisational collaborations. Mergers are widely used to take over other smaller healthcare organisations. As one executive put it '*there was a request to take over the smaller party*' and another executive described it as: '*one of the organisations was too small to continue independently*'. Therefore, there is some overlap with the theme of safeguarding continuity of care in the merger group, while this theme does not feature particularly prominently in textual data from healthcare executives involved in an inter-organisational collaboration.

There are also similarities between collaborations and mergers regarding staffing issues. Some respondents argued that they started a merger trajectory to '*reduce the workload for healthcare professionals*', or that the inter-organisational collaboration was established to '*maximise utilisation and smarter use of a shrinking workforce*'. Among inter-organisational collaborations, staffing issues were the leading theme to emerge from the textual data. Regionalisation also played an important role in both mergers and collaborations. A specific form of regionalisation, described in the policy plan 'Right Care in the Right Place JZOJP', was explicitly mentioned in seven cases among the inter-organisational collaborations.

According to the answers provided after choosing the 'other' response, one objective seemed to be missing in the predefined answer options. Executives involved in both types of integration believe that initiating a merger or collaboration is important for the objectives relating to IT and innovation. Examples include '*the better use of IT and other investments*' (merger) and '*possibilities for eHealth*' (collaboration).

In order to assess whether inter-organisational collaborations and mergers are driven by similar or different motives, it is useful to take a more detailed look at the largest healthcare sectors—in terms of involved organisations and economic importance. In Table 4, we therefore focus on nursing homes, mental care organisations and hospitals. For nursing homes and mental care organisations, all directions of integration (i.e. horizontal, non-horizontal, mixed) are included. For the hospital sector, only horizontal collaborations and mergers are compared, as the number of organisations in these groups allow for further specification.

Across all three sectors, market and bargaining position seem to be more important in mergers than they are in collaborations. The other three main motives are more important for collaboration. Looking at the percentage differences in Table 4, the most overlap in the importance of motives is present for horizontal hospital mergers and collaboration between hospitals, while the least overlap is seen for nursing homes.

The secondary motives relating to healthcare provision reveal some noteworthy differences. For instance, reducing waiting lists and meeting volume or quality standards is much more important for collaboration between nursing homes than for mergers between nursing homes. In the mental care sector, these differences are somewhat smaller. For all sectors, mergers are more often used to reach new groups of patients or new geographical areas. Examining horizontal hospital mergers and collaboration, it is apparent that the importance of secondary motives largely overlaps. Both for mergers and inter-organisational collaborations, realising a broader/more specialist range of healthcare services is the most important secondary motive (86% and 93%, respectively). A similar proportion of all healthcare executives state that maintaining volume and/or other quality criteria is an important objective for horizontal hospital mergers and horizontal hospital collaboration (both 81%).

To summarise, when comparing the findings from the textual analysis in Table 3 with the primary and secondary motives described in Tables 2 and 4, three observations stand out. First, both sources of data indicate the importance that is attached to healthcare provision. More specifically, textual data highlights that in collaboration more emphasis is placed on the practical realisation of coordination around the patient or client, such as the division of tasks between different parties and the coordination of the patients' treatment plan and care pathway; whereas mergers focus more on realising new forms of care or reaching new patients. Second, achieving or maintaining a dominant position seems an important objective for initiating a merger, while this objective is rarely reported in relation to collaboration. Third, the textual data in particular highlights the increasing demand for integration in developing innovation, act together on IT-related themes and jointly solve staffing deficiencies and create training places. These are the motives that underlie both mergers or collaborations between healthcare organisations.

## 4.2 | The trade-off between mergers and inter-organisational collaborations

Results on whether and why healthcare executives switched from a merger to a collaboration, or vice-versa, are presented in Table 5. This is the subset of the population that specifically abandoned one option in favour of another. It does not include executives that considered an alternative, but stayed with their initial decision. 35 executives opted for a merger after initially considering an inter-organisational collaboration (26% of all mergers), while 30 healthcare executives considered a merger but eventually decided to initiate an inter-organisational collaboration (13% of all inter-organisational collaborations).

Healthcare executives who chose a merger over collaboration did so mainly because they regarded the former as a better way to achieve the intended effects (57%). As one healthcare executive put it: '*There are no examples of future-proof collaborations that actually solve problems*'. Those intended effects predominantly relate to healthcare provision (95%). Healthcare executives also prefer mergers over collaboration because they think mergers are easier

TABLE 4 Further examination of primary motives and secondary motives for healthcare provision (numbers are percentages).

Main motives	Nursing homes			Mental care			Hospitals (horizontal only)		
	Mergers (n = 32)	Collaborations (n = 55)	Percentage point difference	Mergers (n = 36)	Collaborations (n = 32)	Percentage point difference	Mergers (n = 31)	Collaborations (n = 33)	Percentage point difference
Healthcare provision	66	89	23	75	94	19	68	82	14
Efficiency	41	55	14	39	53	14	39	33	5
Market/bargaining position	59	27	32	39	25	14	35	42	7
Pressure from internal and/or external stakeholders	13	29	17	8	22	14	19	15	4
Submotives for healthcare provision									
Realizing a broader/more specialised range of services	80	60	20	96	83	13	86	93	7
Providing healthcare services to new groups of patients	50	42	8	73	53	20	38	22	16
Providing healthcare services in other geographical areas	25	4	21	38	23	15	5	22	17
Reducing waiting lists	15	52	37	54	77	23	43	52	9
Increasing possibilities for small-scale care	35	19	16	54	53	1	33	26	7
Being able to meet/maintain to meet volume and/or quality criteria	40	81	41	46	37	9	81	81	0

TABLE 5 Reasons for switching from a merger to an inter-organisational collaboration (and vice-versa).

Considered a collaboration but initiated a merger instead? (n = 35, 26% of all mergers initiated)			Considered a merger but initiated a collaboration instead? (n = 30, 13% of all collaboration initiated)		
	N	%		N	%
To achieve the intended effects better <sup>a</sup>	20	57%	We wanted to collaborate on subdomains rather than fully integrating	15	50%
A merger was easier to manage	17	49%	Lack of support within the organisation for a merger	14	47%
We wanted to fully integrate instead of collaborating in subdomains	17	49%	To achieve intended effects better <sup>b</sup>	11	37%
A merger is permanent rather than temporary	10	29%	A merger would have been too risky	9	30%
The exchange of information would be more complex in an inter-organisational collaboration	9	26%	Collaboration is not permanent	7	23%
Establishing an inter-organisational collaboration would have been too difficult	7	20%	Lack of support outside the organisation for a merger	7	23%
Collaboration was not have been permitted under competition regulation	4	11%	A merger would have been too difficult to achieve	6	20%
Lack of support within the organisation for collaboration	3	9%	An inter-organisational collaboration is easier to manage	4	13%
Collaboration would be too expensive	2	6%	A merger would have been too expensive	4	13%
Ex ante assessment by ACM created clarity	1	3%	Collaboration is not assessed ex ante by ACM	1	3%

<sup>a</sup>Subdivision within the reason 'intended effects' (n = 20) (1) Effects on healthcare provision (95%), (2) effects on efficiency (75%), (3) effects on market and bargaining position (55%).

<sup>b</sup>Subdivision within the reason 'intended effects' (n = 11) (1) Effects on healthcare provision (91%), (2) effects on efficiency (91%), (3) effects on market and bargaining position (45%).

to maintain than collaborations (49%). Some healthcare executives stress that mergers are less complex and quicker to achieve than inter-organisational collaborations, with one executive mentioning '*pace and clarity*' as a benefit of merging.

Healthcare executives who chose a collaboration over a merger did mainly so because merging into a new organisation—and losing their autonomy—was deemed unnecessary (50%) or because the executive perceived a lack of support for a merger within their organisation (47%). For example, one respondent indicated '*A merger takes up a lot of energy, and hampers process improvements in the short run*'. Some healthcare executives chose collaboration over a merger because they considered it a first step towards a (potential) merger: '*we start with a collaboration; a merger might follow later*'. In their consideration, few executives mentioned the enforcement of antitrust rules by the competition authority: four healthcare executives mentioned that plans had been changed because healthcare executives believed that a collaboration was not allowed from a competition policy perspective.

### 4.3 | Perceived barriers

To understand the necessary conditions for designing policy aimed at fostering collaboration, healthcare executives were asked whether they perceived any barriers to collaborating. Of all healthcare executives involved in the survey, 69% experienced barriers in establishing an inter-organisational collaboration. Of the healthcare executives who had actually been involved in collaboration, 75% had experienced barriers, compared to 53% of the executives who had not been involved. Table 6 displays the most frequently cited perceived barriers. Legislation (71%) was mentioned as the foremost barrier. One executive mentioned '*the tension between the (imposed) competition model and collaboration*'. Half of those surveyed indicated that antitrust enforcement by the ACM was a barrier to collaboration. This reason was particularly prominent among executives involved in horizontal collaboration (subdivision not shown in table). However, one respondent acknowledged that antitrust enforcement is necessary: '*Collaboration can sometimes lead to monopolistic organisations and that hampers market access or competition*'. As the third most frequently mentioned barrier, 43% of the healthcare executives mentioned experiencing resistance from the partner organisations involved in the collaboration.

The subdivision in Table 6 reveals differences between healthcare executives who are involved in collaboration and healthcare executives who are not. Executives with experience of collaboration perceive barriers more often. However, these differences appear to be smaller for reasons relating to antitrust enforcement and resistance among partners. Healthcare executives involved in collaboration experience significantly more barriers relating to legislation and the attitude of healthcare purchasers and local government compared to executives without direct practical experience of (establishing) an inter-organisational collaboration. A recurrent theme in the open answers was the role of financing. One executive mentioned '*fragmented reimbursement schemes*', while another executive talked about the '*different financing regimes*' as a major barrier to collaborative action. Another issue identified in the additional remarks related to governance within the executive's own organisations. For instance, one healthcare executive commented that '*executives are not rewarded for successful collaboration across organisational borders*', while another executive mentioned that '*the supervisory board is hesitant*'.

**TABLE 6** Experienced barriers to collaboration, subdivided by the main healthcare sectors (multiple answers possible).

	Total (N = 217)	Healthcare executive not involved in a collaboration (N = 46)	Healthcare executive involved in a collaboration (N = 171)
Legislation	71%	57% <sup>a</sup>	74% <sup>a</sup>
Antitrust enforcement by ACM	53%	48%	54%
Resistance by partners	43%	39%	44%
Attitude of healthcare purchasers	40%	26% <sup>a</sup>	43% <sup>a</sup>
Restriction in information exchange	39%	33%	41%
Limited financing options	39%	24% <sup>a</sup>	43%
Lack of urgency	35%	26%	37%
Attitude of (local) government	25%	13% <sup>a</sup>	28% <sup>a</sup>
Lack of internal support base	15%	11%	16%
Resistance by patients and clients	11%	13%	10%
Resistance by other parties than partners	6%	7%	5%

<sup>a</sup>Significant differences between healthcare executives involved and healthcare executives not involved in a collaboration at the 5% level, tested with Chi-square tests.



## 5 | DISCUSSION

Integration between healthcare organisations through inter-organisational collaborations and mergers is a vital part of contemporary health systems, and is likely to grow in importance in the resource-constrained environments characterised by increasing demand that are typical of the healthcare sector.<sup>2,70</sup> To the best of our knowledge, this is the first study that systematically explores and compares healthcare executives' motives for engaging in collaboration and mergers using a representative nationwide study sample. Insight into the executives' considerations when deciding between inter-organisational collaboration or a merger is relevant to health policy because the results of this decision-making process will have an impact on the functioning of decentralised health systems, and market-based health systems in particular.

According to our study, collaboration is typically established to overcome difficulties in the healthcare workplace, such as to improve care-specific coordination between medical professionals or to implement care pathways. This primary focus on quality issues and the coordination of healthcare logistics sits well with the current and ongoing tendency towards integrated care, which has been identified as an important objective for inter-organisational collaborations.<sup>2,19</sup> Improving quality, meeting quality and volume standards and implementing evidence-based practices were also found to be important reasons for collaboration across sectors. This is consistent with findings not only from hospital care settings<sup>71,72</sup> but also in long-term care and mental care.<sup>73,74</sup> Some merger-specific drivers also stand out: bailing out or taking over distressed healthcare organisations, strengthening a bargaining position and exploring and opening up new geographical markets or patient groups. These findings mirror those of previous studies which have concluded that healthcare organisations integrate as a response to a competitive healthcare environment,<sup>14,24</sup> and highlighted that mergers are more common when healthcare organisations are experiencing financial distress.<sup>12</sup>

Consistent with the similarities we found between healthcare executives' motives for initiating both types of integration described in the theory, we also find substantial overlap between the motives and secondary motives pursued, especially when we focus on horizontal hospital mergers and collaboration. This provides a preliminary indication of some substitution potential between mergers and collaboration. However, in our sample a small minority of the organisations actually switched from a merger to an inter-organisational collaboration or vice-versa.

Institutional barriers were found to constitute the biggest barrier preventing healthcare executives from engaging in collaborations, which is consistent with previous literature.<sup>32,44</sup> One barrier deserves special attention from a healthcare policy perspective. Most healthcare executives perceive the role of competition policy as an important impediment to establishing inter-organisational collaborations, even when they are involved in non-horizontal and mixed agreements which are generally less likely to be anti-competitive. Additionally, the organisational motives for collaboration do not seem to be about restricting competition, while sometimes the motives for mergers are. Hence, it seems that the prohibition on cartels has a deterrent effect on healthcare executives' collaboration decisions.

### 5.1 | Limitations

The ambiguity around the definition of a collaboration agreement should be acknowledged as the first limitation of this study. The term collaboration includes a wide range of different types of integration that stop short of a merger. In the questionnaire, healthcare executives were presented with the definition that we applied. However, due to potentially different levels of integration among organisations, and divergent interpretations of the definition by healthcare executives comparability between inter-organisational collaborations can be an issue. The second limitation is methodological: the selection of cases may have been subject to bias, because executives were allowed to self-select the most recent collaboration or merger. Particularly given that some organisations are involved in a large number of inter-organisational collaborations, executives may have been inclined to think about the most significant merger or collaboration. The representative sample and the use of healthcare executives' in-depth insight and experience should have mitigated these limitations, however. The construct validity of the question on trade-offs can

be regarded as the third limitation. This question specifically measures actual switchers, leaving out the group that considered an alternative but did not switch. Hence, it gives rise to an underestimation of the share of executives considering an alternative. Survey research into organisational motives is associated with the risk of socially desirable answers; however, the anonymous nature of the survey and extensive explanation of the procedure applied should have reduced this risk. Moreover, the inspection of open-ended questions showed the openness of the executives to discussing potentially sensitive themes.

## 5.2 | Implications and future studies

In spite of the limitations outlined above, the findings of this study have implications for future policy and practice. Based on our study, we can formulate three important aspects of policy development in relation to integration. First, from a healthcare management perspective, the governance issues experienced by healthcare executives deserve attention, particularly with regard to managing multiple non-horizontal and mixed collaborations.<sup>17</sup> In this context, formulating concrete objectives and good supervision by internal stakeholders, like the supervisory board, are important to ensure that collaboration satisfies both organisational and societal objectives. For example, in the Netherlands, healthcare organisations are expected to comply with the Good Governance Code for Healthcare, which specifically includes the obligation to scrutinise societal objectives. Support in the form of inter-professional exchange of best practices, leadership development or focussing on network governance in executive training, may be beneficial in this regard.<sup>63</sup>

Second, from a competition policy perspective, providing targeted guidance that clarifies the scope of antitrust rules in practice could help healthcare executives when they are considering integration. Since there is no ex-ante 'collaboration control', guidance from competition authorities on how to conduct self-assessment is important for removing (potential) barriers. However, so-called 'strategic ignorance' on the part of healthcare executives cannot be ruled out, as they may benefit from emphasising the obstacles they experience to gain more leeway, as competition policy sometimes restricts healthcare organisations as they seek to expand.

Third, facilitating the socially desired form of integration should not be the sole responsibility of national competition authorities<sup>75,76</sup>; this requires a broader health policy focus. In the Netherlands, there is a legislative proposal that would require healthcare providers to carefully consider other types of integration and report on this when filing a merger notification for antitrust scrutiny. This could be a valuable addition to existing policy. Additionally, when promoting collaboration in healthcare, policymakers should bear in mind the potential drawbacks of increased coordination and consolidation.<sup>52,59</sup> This is especially relevant in market-based health systems.<sup>77</sup> Given the lack of empirical insight into its implications on the long run, intermediate policy evaluation is recommended.<sup>63</sup>

In future research, in-depth case studies are required for a detailed examination of decision-making by healthcare executives and in order to establish a link between integration decisions and health policy developments. A qualitative approach could also offer the opportunity to study informal relationships and arrangements between organisations in addition to the current focus on formal agreements. Finally, this study focuses particularly on the decision-making procedure prior to the establishment of a merger or inter-organisational collaboration. Any useful integral assessment framework for balancing collaborations and mergers requires knowledge on the effects in the medium to long term. Our findings could serve as a starting point for such research.

## 6 | CONCLUSIONS

This study compared motives, trade-offs and barriers perceived by healthcare executives in the Netherlands related to healthcare organisations' collaborations and mergers. The results indicate that broadening the scope of healthcare provision is the foremost motive for both mergers and inter-organisational collaborations. Only a small minority of the

responding executives switched between both types of integration. Institutional barriers, such as laws, regulations and financing regimes, appear to be the most restricting for healthcare executives to engage in inter-organisational collaborations. Building upon our explorative study, future research is recommended to study multiple collaboration and merger cases qualitatively for a detailed examination of decision-making by healthcare executives and develop an integral assessment framework for balancing collaborations and mergers based on their effects in the medium to long term.

## AUTHOR CONTRIBUTIONS

All authors provided substantial intellectual contributions to the published study. The questionnaire was developed by Wouter van der Schors, Ron Kemp, Anne-Fleur Roos and Marco Varkevisser. Data preparation and analysis was conducted by Wouter van der Schors. Wouter van der Schors wrote the manuscript. Ron Kemp, Anne-Fleur Roos and Marco Varkevisser critically reviewed all draughts and final copy. All authors have read and approved the final manuscript.

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## CONFLICT OF INTEREST STATEMENT

The authors declare that they have no competing interests.

## DATA AVAILABILITY STATEMENT

The datasets used and/or analysed for this study can be made available by reasonable request to the corresponding author.

## ETHICS STATEMENT

Ethical approval by the institutional review board was not necessary for this study. Participating in this study was voluntary. Participants were informed about details of the researchers, the study objectives confidentiality, and data storage. Executives were given the opportunity to opt-out of the mailing list prior to the study.

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