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Awarding and performance monitors: Do hospitals care?

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Abstract

Introduction

Since the Dutch health care reforms in 2006, patients are expected to choose between healthcare providers. Several patient organizations developed projects to offer choice support to their members and to incentivize quality improvement by health care providers. The quality improving effects of these projects is dependent on the response of the providers. This research investigates the different effects of five of these projects on health care quality improving actions.

Methodology

The research was conducted by examining the quality improving and choice supporting projects of five patient organizations: The plume for fertility care, the ribbon for breast cancer care, the cardiovascular hallmark, the rheumatism monitor and the project 'quality of integrated care'. A questionnaire was sent out to the contacts of these projects about their motivation to participate in the project and the changes they made due to the criteria of the project.

Results

202 questionnaires about the five projects were completed. The response rate was 40.8%. Participants of the ribbon appeared to have made most changes as a consequence of the criteria. The change that was made most by participants of the ribbon was an improved digital registration. For the other projects the most often made change was adjusted information provision towards patients. No difference in response to the projects appeared between hospitals in areas with high and low competitive pressure. The attitude of health care providers towards awarding appeared to be less positive for hospitals that received an award than for hospitals that did not.

Conclusion and discussion

All projects appeared to have a quality improving influence on the hospitals. The effect of the ribbon is largest, which is probably due to a combination of the amount of media attention this project gets and the composition of the criteria. Patient organizations setting up an awarding project or performance monitor should keep their goals in mind and be aware of the possible motivations hospitals have for participating.

1. Introduction

The activity and influence of patient organizations in the Netherlands is rising strongly. The recent health care reforms have largely attributed to this. In 2006, the Dutch health insurance law became effective ("Invoerings- en aanpassingswet Zorgverzekeringswet," 2005). One of the main goals of this law was to improve the quality of care and make health care accessible and affordable to everybody (Ruth, Jong, & Groenewegen, 2007). Due to the market-oriented aspects of the new system, choice options between both health care providers and insurers became a bigger issue for patients. Correspondingly, health care providers were expected to become more responsive to the needs of health consumers, leading to more efficient and cost-effective care (van de Bovenkamp, Vollaard, Trappenburg, & Grit, 2012). Patient organizations are expected to fulfill a role in this choice process; they can act as representatives for their members' interests (Vianen, 2006). Consequently, the organizations developed the wish to create transparency in differences between health care providers for their members. Quality monitoring instruments are among the tools used by patient organizations to inform their followers and to incentivize improvements in health care. An award for good performing hospitals can be attached to the monitor, although this is not necessary (MediQuest, 2012).

The data used in these monitoring tools are delivered by the hospitals. Patient organizations are among the large number of parties requesting disclosure of performance data from hospitals. A few of the other parties are the Dutch Health Care Inspectorate, individual health insurance companies and the collective of all Dutch health insurers. These requests lead to a substantial workload for hospitals as well as for the persons responsible for delivering the data, which is usually a quality functionary, a medical professional or the head of a department. Even though taking part in most monitoring schemes is voluntary, most hospitals comply because participation affects their reputation.

Patient organizations, through these monitoring schemes, seem to have a considerable influence on the health care providers. They supply a large workload for the hospitals and not participating or having a poor outcome in their monitors may have serious effects for hospitals. The use of awards is often advocated by reasoning that it leads to improvements in health care. This can only be justified when empirical evidence proves that the use of these awards gives a correct reflection of quality and does indeed lead to improvements in health care (Giard, 2005). Whether this is the case, is a question that will be addressed in this thesis.

2. Background

§2.1. The use of performance indicators

Performance indicators are a common and widely accepted method to measure and monitor quality in health care. The number of performance indicators rises in almost all western countries and there is an increasing general expectation that healthcare providers collect and report information on the quality of their care (M. N. Marshall, P. G. Shekelle, S. Leatherman, & R. H. Brook, 2000a). Although performance data are collected for a variety of sectors in health care, this thesis focuses on the performance data for hospital care.

Collecting performance data serves various goals. The Dutch health care inspectorate uses the data to make quality of care measurable and transparent (Inspectie voor de Gezondheidszorg, 2012). A large share of the performance data is publicly available for third parties. Other parts might be only available to the collecting party, such as an insurance company. The data are used as a tool for risk analysis by controlling bodies as well (Pollitt, Harrison, Dowswell, Jerak-Zuiderent, & Bal, 2010).

Additionally, these data are one of the resources used by patient organizations for their quality monitoring tools. Performance data may furthermore be used by third party purchasers in the purchasing process (Marshall, et al., 2000a).

The first known disclosure of public performance data in health care was in the 1860s already, when Florence Nightingale highlighted differences in mortality rates in London hospitals (Marshall, et al., 2000a). The first collection of health care performance indicators in the Netherlands took place only in 2003 though. Pollitt et al (2010) described the development of the Dutch set of performance indicators, which is quite similar to the development of performance indicators in other countries. This development is likely to occur in six steps:

1. The multiplication of the indicators
2. The drift from formative to summative indicators
3. Linkage of the indicators to incentives and sanctions
4. Complication of the indicators
5. The diffusion of 'ownership' of the various sets
6. A decline in the external audiences' trust in performance data and interpretations

The first five changes are quite clear in the development of the Dutch performance indicators. The last one however does apply rather to the UK, which has been showed as the most distrustful country in the EU in respect to public trust in official statistics (Pollitt, et al., 2010). An additional development is now occurring in the Netherlands: the number of indicators collected by the government is in 2013 going to decrease with 30% (Zichtbare Zorg, 2012). These are not the only indicators requested from hospitals though. The net decrease therefore will be lower than 30%.

§2.2. Awarding in health care

Awarding is a particular method to classify hospitals according to the quality of delivered care using performance data. In the case of awarding, certain hospitals are allocated an award for a specific type of care and others are not. An example is the in the Netherlands widely known 'ribbon' for well-performing hospitals in breast cancer care. Awarding is a way to transform the rough performance data into something useful and accessible for the lay public. A combination of criteria determines the allocation of an award. These criteria might be all must-haves or in other cases the hospital should meet a minimum number of criteria. The various awards differ from each other in various aspects, such as the number of criteria for getting an award and the share of health care providers that gets awarded. Certain patient organizations

choose only to award the excellent performing hospitals and others choose only not to award the ones at the bottom of the segment. More information about the various awards is presented in §3.2.

History of awarding

Quality awards in the public sector find their origins in award models from the private sector. The first quality awards were designed in Japan, right after World War II in order to reconstruct the country's industry. To achieve efficiency and quality in manufacturing processes, an organization promoting scientific knowledge about quality control was founded, which undertook giving awards to well-performing companies in the field. These are the foundation of awards used in health care nowadays. Thus, quality awards were originally conceived in order to improve the technical quality of industrial mass products. The use of these quality awards was adapted by the western world in the 1980s when the US had to improve its goods and services to compete with high-quality imports from Japan. The first quality awards in the public sector were given in 1992 and were called 'The Speyer Quality Award' (Löffler, 2001). The Speyer Quality Award were prizes for Austrian, German and Swiss organizations in the public sector, which intended to support the modernization of public administrations (Greiling, 2005). Later, the health care sector adopted this approach and started developing awards as well (Marshall, et al., 2000a).

Motivations for awarding

A lot of variation exists in the motivation behind the release of public performance data. The information might function as a marketing tool, a tool to control costs or to regulate the health system. In addition, it may serve to promote accountability (P. C. Smith, Mossialos, Papanicolas, & Leatherman, 2009). Also, awarding may be a decision making instrument for health care purchasers or users. Finally, public disclosure of performance data is seen as a mechanism to promote quality improvement (M. N. Marshall, P. G. Shekelle, S. Leatherman, & R.H. Brook, 2000b).

According to Hartley and Downe (2007), awards are seen by policymakers and practitioners both as a means of celebrating high performance as contributing to the dissemination of good practice. They state that the ultimate aim of awards is improving public services. Löffler (2001) described two different goals for using awards as a benchmarking instrument: introducing quasi-competition in markets that lack market competition and identifying excellent organizations. Furthermore, stimulating a shift in the providers' focus from financial performance towards quality of care is mentioned as a goal for reporting hospital performance (Marshall & Romano, 2005).

Effects on consumers and purchasers

Obviously, the effects of awarding would ideally meet the goals mentioned above, such as improved quality and greater openness and accountability (Hamblin, 2007). The improvement of quality could happen in two ways; first, patients start selecting the best providers because consumerism is stimulated; second, the threat that patients may start to use presumably reliable information, or even a natural competitiveness between clinicians, may stimulate them to improve their services (Hamblin, 2007).

The effects of the public release of performance data have been investigated in many ways. Despite all this research, public reporting has not been shown to be conclusively effective in stimulating consumers to base their health care provider choice on performance information. Various authors concluded that the ability of public reporting to influence patient choice is limited (Faber, Bosch, Wollersheim, Leatherman, & Grol, 2009). Research also points out that interpreting and using the performance data in the correct way is particularly difficult for older and less-educated patients, due to the

complexity of the comparative health-care information (Damman, et al., 2012). Winters et al. (2012) found that most patients consult a choice-supporting instrument *after* their first visit to the hospital.

In most Western countries, the user of health care (the patient) is not the same party as the purchaser of health care. The purchaser can either be the insurance company or the employer of the patient. Policy analysts predicted a larger effect of performance data on coalitions of purchasing parties than on individual consumers. However in 2000 in the US, this effect was proven to be small but increasing (Marshall, et al., 2000b). Nevertheless, taking awards into account in the purchasing process has become more common for Dutch insurers in 2012 (Geenen & Vreede, 2012).

Effects on providers

Health care providers may have a negative attitude towards the public release of performance data. They see the data as lacking in legitimacy and question their meanings (Davies, 2001). Nevertheless, evidence suggests that provider organizations are more responsive to the publication of performance data than consumers, purchasers and individual physicians. In addition, hospitals in competitive markets are more likely to implement changes in response to performance data than those with a monopolist position (Marshall, et al., 2000b).

Hamblin (2007) described four incentives for health care providers to improve quality of care, activated by different incentivized measurement schemes. When developing quality monitoring tools, it is important to keep in mind through which mechanisms improvement of quality of care occurs and how this can be incentivized:

- Intrinsic motivation – This is the motivation to perform as well as possible, in order to increase the common good. This may also reflect a desire to conform to one's self image as someone who does well. Belonging to the group of professionals by behaving according to the shared set of values might also be an incentive.
- Implicit incentives – The desire to be seen as better than one's peers, the perceived likelihood that performing well leads to increased respect or the belief that being seen as performing badly will have negative consequences.
- Indirect incentives – The search for personal promotion, assuming that being seen as a successful performer leads to more personal success. Also, the expectation that a high rating leads to some kind of desired benefit or to raised attraction from consumer belongs to this kind of incentives.
- Direct incentives – These are direct payments, access to investment funds or avoidance of catastrophic consequences, such as potential closure of a facility or loss of contracts to provide care. Awards or accreditations are direct incentives as well.

Davies (2001) found that peer pressure, professional pride and the logic of decent comparative data were key motivations of changes in behavior related to quality improvement, rather than external incentives such as financial bonuses.

Quite some evidence is found of how published patient care performance data have improved quality of care. Evidence suggests that releasing performance data stimulates quality improvement at the hospital level (Fung, Lim, Mattke, Damberg, & Shekelle, 2008). As a Dutch fertility-care physician stated: *"Everybody wants to have the award! Yes, when looking at those criteria you probably think like, hey, there is something we can change a bit"* (Heek, 2012).

Radnor (2009) reported positive results as well on a public awarding program. She investigated the Beacon scheme, a voluntary award scheme for local government in the UK. Participants of this scheme reported that the scheme encouraged networking with peers and provided models for improving performance. More broadly, Radnor stated that award schemes could be viewed as benchmarking tools, supporting the development of good practice. In addition, it was concluded that generally a continuing focus on performance is made after engaging in performance measurement once. However, there

are also some alleged results of publishing patient care performance data that have not been proved yet, such as an effect on effectiveness, safety and patient-centeredness (Fung, et al., 2008).

Fung et al. (2008) described two pathways through which public reporting may motivate quality improvements; the selection pathway and the change pathway. In the selection pathway, concerns about declining market shares motivate the provider to improve. In the change pathway, the identification of deficits in quality is sufficient to stimulate improvement within an organization. Hibbard (2008) added a possible third pathway to this: the concern for public image or reputation. This is called the reputation pathway.

Quality of care is the responsibility of all employees of an organization (Harteloh & Casparie, 1998b). The quality of health care is largely influenced by two parties: the physicians and the hospital management. The effect of publishing the performance data is dependent of the attitude of these parties towards the tool. Research points out that physicians are interested in but skeptical about such data and consider it to be of minimal use (Marshall, et al., 2000b). In a Dutch newspaper of January 2012, a gynecologist gives a very positive reaction after getting the award for fertility care though: *"We are very happy with this award. To us, it is like getting a Michelin star. We will continue working hard to keep this award, because keeping it is at least as important as getting it"* (EdeStad, 2012). Nevertheless, not everybody is as satisfied with awarding as this practitioner. As a Dutch vascular surgeon stated: *"Nobody wants to participate in these lists. But if you don't, you end up on the bottom of the list and nobody wants that either"* (Anonymous, personal communication, 2012). Hafner et al. (2011) found, in agreement with other studies, an association between the performance score of a hospital and their opinions about public reporting. That is to say, lower performing hospitals are more likely to question validity of data or express concerns that public reporting portrays unfair images of the delivered quality. However, this research found smaller differences than reported by earlier researches, performed between 2003 and 2008.

The effect on providers of publishing quality measures also depends on the intentions of the health care provider. Le Grand (1995) stated that the functioning of a welfare state depends on the assumption about people's motivational characteristics we make. He made a well known categorization of policy-makers depending on the origins of their motivational behavior, in which people may either be knights, knaves or pawns. Knights are altruistic, in contrast to knaves who are motivated primarily by their self-interest. Pawns on the other hand are essentially passive or unresponsive. Thus, policy designed for pawns would differ from policy designed with the assumption that people respond actively to incentives for change or improvement. When adopting this theory, one must take notice of the addition Le Grand makes to this statement: when incentives are knave-directed, knights may start to behave more knavishly.

Incentives for change

Bevan and Hood (2006) made a categorization of health care providers, based on their motivations for change:

- Saints – Their agendas are motivated by intrinsic goals, not by external incentives. When an external incentive conflicts with the common goals, these will not be changed.
- Honest triers – Broadly share mainstream goals, will report honestly and will endeavor to improve in response to reported poor performers. Improvement depends on something being incentivized. Honest triers are less likely than saints to have an internal drive for improvement.
- Reactive gamers – Broadly share mainstream goals but will spin or fiddle the data if they have an incentive to do so. If the chance of a sanction for gaming seems to be small, reactive gamers are likely to game.
- Rational maniacs – Do not share mainstream goals and aim to manipulate data. Act entirely in self-interest. The behavior of this group may be unethical and even criminal.

The effects on providers of measuring performance data are expected to be larger when the data are made public (Davies, 2001). This is especially the case when providers believe that the information is used by consumers or purchasers when making choices (Mukamel, Weimer, & Mushlin, 2007). Also, the effect is expected to increase when the indicated performance is below expected (Davies, 2001). It is important to keep these differences in mind when attempting to stimulate improvements in health care. Using targets as a quality improving tool, two assumptions are made: The majority of health care providers consists of saints and honest triers, and the introduction of targets will not lead to a significant shift in the population from saints and honest triers to reactive gamers and rational maniacs (Bevan & Hood, 2006).

Winters et al. (2012) found that specialists use awards when developing policy and to strengthen their position as a competitor. Also, they think awards are useful to show patients the strengths of the hospital.

Adverse effects of performance data and awarding

Unfortunately, the disclosure of performance data may have unintended negative consequences as well (Pidd, 2005). Evidence suggests that the disclosure of performance data may lead to gaming and an inappropriate focus on the indicators that are being measured (Marshall, et al., 2000b). Gaming could either be manipulating the data to hit the target or reducing performance where targets do not apply (Bevan & Hood, 2006). It may be for instance the manual 'correction' of data into a desirable answer (Bevan & Hamblin, 2009). Another unintended consequence of the disclosure of performance data could be a shifted focus towards the goals which can be met easily. For instance in the UK, a target was set for ambulance services, in which 75% of category A calls should be responded to within 8-minutes. Consequently, trusts concentrated their ambulances in densely populated areas where the 8-minute target was more easily met at the expense of patients in rural areas. In this case, efficiency is prioritized in the expense of equity (Bevan & Hamblin, 2009). This unbalanced focus on the measured indicators is likely to occur in awarding, where a few criteria are selected to represent quality as a whole (Bevan & Hood, 2006). Gaming is less likely to occur in 'saints' and 'honest triers' than in 'reactive gamers' and 'rational maniacs'.

Already in 1995, Smith listed eight unintended consequences of publishing performance data in the public sector (P. Smith, 1995):

- Tunnel vision: When service managers, responsible for various different targets, choose the ones that are easiest to measure and have a lack of attention for the others.
- Sub-optimization: When service managers only operate to improve their own operation but damaging the overall system.
- Myopia: When managers focus on short-term targets at the expense of long-term objectives.
- Measure fixation: When the focus is more on the measure than on the real desired outcome. An example of measure fixation is mentioned by a Dutch fertility-care physicist in the research of van Heek (2012): *"For example, the criterion that there should be a patient satisfaction survey. When you give every patient a piece of paper with: are you satisfied with the care we deliver, checkmark yes, checkmark no, then you have a patient satisfaction survey and you have met the criterion. These are bad solutions, but they make you meet the criteria."*
- Misrepresentation: When performance data are misreported or distorted to make a better impression. This is a form of fraud.
- Misinterpretation: When the statistical measures are imprecise, leading to an observed difference when there is no real difference between the units.

- **Gaming:** When a manager deliberately under-achieves in order to secure lower targets in the next measurement round.
- **Ossification:** When a performance indicator has lost its purpose but is not revised or removed.

Examples of adverse effects of performance indicators have also been shown in two hospitals recently. The first is the Dutch Maastad hospital, where the outbreak of a multi-resistant bacterium caused unnecessary damage and sorrow to patients. An external inquiry concluded that indicators in this market-oriented hospital were used too much for scoring and too little for improving quality. Consequently, the bacteria outbreak was not signaled soon enough and large problems evolved (Externe Onderzoekscommissie MSZ, 2012).

Even larger was the scandal of the Stafford Hospital in the UK. It is said that 400-1200 unnecessary deaths occurred in this hospital due to failures and an exorbitant focus on targets. The report made by an inquiry after the scandal came to light states that patient care had become secondary to meeting targets. There was an over reliance on process measures and targets at the expense of the focus on providing quality care to patients (R. Smith, 2009; Thomé, 2009).

These examples do not mean that using targets is by definition something negative. The problems are likely to arise when management and policy is solely constructed around these targets. Also, as becomes clear from these perverse effects, they are not always a consequence of malpractice. It might be the case that the intentions are good and honest but the outcome is one of these unintended consequences. Both positive and negative effects may occur at the same time.

Patient organizations are aware of the possible adverse effects of their choice-supporting instruments. For instance, in the fertility monitor by the patient organization for fertility care Freya, it was a conscious choice not to include any outcome indicators in the criteria because the main outcome indicator for fertility care, the number of pregnancies, is influenced by various factors. One of these factors is BMI. If the share of successful treatments would be a criterion, the clinics could be expected to lower the upper BMI-limit for their patients. Consequently, less patient would find a hospital for treatment and this could be considered an adverse effect (Blijker, 2012).

Difficulties with publishing performance data

Performance itself is hard to pin down, and usually a lot of discussion rises when setting the criteria for an award. Performance indicators are supposed to give a faithful reflection of the quality of care but even a straightforward indicator as mortality rates is complex, due to factors such as the composition of patient populations (Giard, 2005; Snelling, 2003). Providers with the lowest outcomes on the performance data are more likely to criticize the validity of the data (Marshall, et al., 2000b).

The most effective and appropriate level for the reporting of performance data has not been found yet. A balance between costs, effectiveness and fairness to providers has to be achieved, and considerable doubt exists about the ideal degree of risk adjustment to health outcomes (Marshall, et al., 2000b). In addition, it is not yet proven that the disclosure of performance data leads to quality improvements (Giard, 2005).

§2.3. Research question

As mentioned above, both the disclosure of performance data and awarding have a large influence on hospitals. Regrettably, the pursued effects are not always equal to the observed effects. In addition, variation exists between the various awarding programs but little is known about the variation in effects. Therefore, in this thesis the following research question is investigated:

What are the effects of the various forms of publishing performance data used by patient organizations on health care quality improving actions by health care providers?

The following sub questions will be used in order to answer the research question:

- Are the motivations behind the choice for a specific way of publishing performance data in tune with the effects?
- Is participating in the patient organizations' projects based on intrinsic motivation to deliver good care or on the wish for a good reputation?
- What changes are made by the health care organizations as a consequence of the initiatives?
- Does the hospital's position in the market influence its response to performance data?
- How is the influence of awards on quality of care judged by health care providers?

3. Methodology

§3.1. Study design

The research was done on the occasion of the master's thesis of a Dutch student in Health Economics, Policy & Law at the Erasmus University Rotterdam. The research is part of an internship at MediQuest in Utrecht, a Dutch private company focused on quality of health care.

In order to answer the research question, information was collected about five different projects carried out by patient organizations, which are all implemented to incentivize improvements in health care quality or to offer choice-support for patients. The patient organizations whose projects are highlighted in this research are the Cardiovascular group, the Dutch Federation of Cancer Patient Organizations (NFK), the Dutch Breast Cancer Association (BVN), the patient organization for Fertility Care (Freya) and the Patient Organization for Rheumatism. More information about these organizations and their projects is provided on page 13.

Answering the research question of this thesis has taken place in two steps. The first step was designed to collect more information on the projects by the patient organizations. Therefore, explorative interviews were held with the five involved project managers of MediQuest. The MediQuest project managers take care of the data processing part of the choice supporting tools and the integrated care project. The main scope of these interviews was getting insight in the tasks MediQuest does for the patient organizations. In addition, by having these interviews, the MediQuest employees got an update about the research. After these first explorative interviews, interviews were held with the project managers from the five involved patient organizations to get insight in their goals and motivations. The goal of these interviews was both informing the patient organizations about the research and collecting information on the projects such as motivation for developing a choice-supporting monitor.

The second step was data collection from the health care providers through a questionnaire. Before sending out the questionnaire, the last semi-structured interviews were held. These four interviews taken to employees responsible within hospitals for delivering the performance data were meant to provide information useful for building the questionnaire. The topic list for these unstructured interviews can be found in Attachment A. The final step was the quantitative data collection at all Dutch hospitals. More information on the qualitative and quantitative data collection is provided in paragraph 3.2. and 3.3.

§3.2. Qualitative data collection

A large number of health care awards has been developed in the Netherlands. An overview of all Dutch awards existing mid 2012 is provided in attachment B. The table shows that the majority of these awards is developed in collaboration with research company MediQuest. MediQuest uses existing performance data and translates these into choice-supporting tools or awards. If necessary, MediQuest collects additional data through questionnaires (MediQuest, 2012).

As said before, the various patient organizations use diverse ways to present the quality data. Roughly, we can make a distinction between three levels of transparency used:

1. The performance data are available to anyone and some type of award is given to the best performers.
2. The performance data are available to anyone but no award is attached to it.
3. Performers can only see their own performance data (and a general report on the type of care is publicly available).

For this research, five different projects are analyzed. Three projects within the first category are investigated, namely the 'ribbon' of the Dutch Breast Cancer Association (BVN), the 'plume' of Freya, the patient organization for people with fertility problems, and the 'vascular hallmark' by the Cardiovascular Group. In the second category a quality monitoring tool by the Patient Organization for Rheumatism (RPB) was investigated. The Dutch Federation of Cancer Patient Organizations (NFK) conducted a project in the third category of transparency. These five projects will be further discussed in the next section.

The vascular hallmark

In October 2007, the first of these five initiatives was launched by the cardiovascular group and is named 'choose your vascular care'. It consists of an online monitor with a selection of performance indicators delivered by the hospitals, together with an award for the hospitals that meet the minimum criteria. The data are partly coming from the national public data and are partly collected by the cardiovascular group through a questionnaire.

The main reason for launching an online tool were the many questions that the helpdesk of the 'organization for vascular patients', the precursor of the cardiovascular group, received about where they could find good quality of vascular care. The professionals wished to be able to answer these questions based on objective criteria instead of experience and gut feeling. The choice to attach an award to the monitor was made by the members of the cardiovascular group during the general assembly. The main goal of this award was achieving openness for the patients. Although many patient organizations do not wish to refer to their award as a hallmark, the cardiovascular group has even named it 'the vascular hallmark'. They state that hospitals who do not manage to get the award do not deliver sufficient care.

When the hallmark criteria were released for the first time they were all must-haves. Due to disagreement about the criteria with the medical profession though, this was later changed into partly must-haves and partly 'other criteria'.

The cardiovascular group would like to expand the monitor in the future. One possibility could be adding results of the Consumer Quality Index which is an instrument to measure patients' experiences with health care. These results are not available for cardiovascular care at the moment though. The vascular hallmark makes a distinction between sufficient and insufficient quality of vascular care. Project manager Annemarie Auwerda would like to add star scores to these results. In this way a distinction could be made on more levels and excellent performance can be shown (A. Auwerda, personal communication, September 12th, 2012).

The ribbon by BVN

Probably the best known award in the Netherlands is the pink ribbon, the award for good performing hospitals in the area of breast cancer care. The Pink Ribbon is also the international symbol for the fight against breast cancer. Other than the Cardiovascular Group, the BVN does not refer to its award as a hallmark. They rather see it as an award, which distinguishes the good performing hospitals. If a hospital receives the ribbon, this means they meet the basic requirements, formulated by BVN, for breast cancer care. The ribbon is part of the breast cancer monitor, a choice-supporting instrument containing information on the breast cancer related information of the Dutch hospitals.

The motivation for developing the monitor was threefold. First, the organization wanted to offer a choice-supporting instrument to their members. They want to help patients by telling them what they think is important in breast cancer care, from the client perspective. The second motive for developing the instrument was the long waiting times for breast cancer care at that time. There turned out to be huge differences in waiting and processing times between various hospitals. In addition, a large variation between hospitals existed in the supply of the expensive drug Herceptin to breast cancer

patients, although this was adopted in the medical guidelines in 2002 already. The third reason was to make breast cancer care transparent so that projects could be started to higher the quality standards in breast cancer care. Therefore, the BVN wanted to develop a tool that patients could use to compare quality of care in hospitals. This tool was developed in the form of a monitor containing the performance data of the hospitals. The ribbon is part of this monitor and is awarded to the good performing hospitals.

When the monitor was about to get released, the medical profession was really skeptical. When a renowned strategic consultancy company judged the monitor to be of great value and far ahead of time, the BVN decided to continue the release. The release of the monitor was January 11th, 2010. The unique thing about the breast cancer monitor is the fact that quality criteria are combined with the results of a Consumer Quality Index (CQI). The quality criteria that do or do not lead to an award are derived from the mandatory performance data that hospitals have to deliver combined with an additional questionnaire.

In the future the BVN would possibly like to develop a real hallmark instead of an award. This would include inspections on the hospital locations, for instance in collaboration with the scientific association for breast cancer care (M. Schrieks & R. van der Heide, personal communication, August 7th, 2012).

The plume by Freya

In 2011, the patient organization for fertility care, named Freya, launched a new award in the Dutch health care landscape: 'the plume'. Freya was one of the first organizations in the Netherlands with an award for best practices, titled the Freya Awards. This prize was awarded yearly to the fertility clinic with the best results on patient satisfaction. However, the organization got inspired by the breast cancer monitor and requested a subsidy to develop such a tool. The subsidy got granted and the monitor was developed.

The main motivation for wanting a fertility monitor in addition to the already existing Freya Awards was the wish to give a more objective judgment about the providers. Freya had noticed big differences in quality between various providers and wanted to give incentives to improve quality. Some aspects could be easily improved and therefore Freya wanted to incentivize improvement of these aspects and the criteria of the fertility care monitor could possibly be such an incentive. Another motivation for developing the monitor was to inform the patients about the differences in health care quality. At the moment, 36 out of 92 participating hospitals received the plume and this number is updated every month if hospitals update their data and meet the required number of criteria. An update of the criteria will follow mid 2013.

In contradiction with the similar initiatives of other patient organizations, a quick consensus was reached with the medical profession about attaching an award to the monitor. The profession even suggested including more outcome measures. Because of large variation in patient characteristics and therefore a lack of comparable data, Freya decided not to meet this request yet. Nevertheless this is considered a limitation by Freya's project manager Hanneke Nusselder, and she would like to explore the possibilities to include outcome measures in the monitor.

In the future, Freya would like to add the results of the patient satisfaction questionnaires, on which the Freya Awards are based, to the monitor. In this way a combination of the quality criteria and the patient satisfaction score would be made transparent. Also, when analyzing the first set of data, Freya and MediQuest concluded that the questionnaire and criteria should be further defined since some of those turned out not to be fully unambiguous (H. Nusselder, personal communication, September 4th, 2012).

Rheumatism monitor

The Patient Organization for Rheumatism (RPB) uses open access performance data as well, although no award is attached to it yet. The RPB developed a monitor in which the performance data of the providers are made visible in 2011. This monitor is called 'choose your rheumatism care'. The main motivation to develop the monitor was to offer choice support for the patients since the helpdesk of the RPB used to receive a lot of questions about good performing providers. The monitor contains an overview of all rheumatology practices in the Netherlands, which is considered a valuable service towards the patients. However, the RPB underlines that nowadays it is a tool rather to stimulate improvements in rheumatism care than to inform patients.

Initially, the RPB wanted to attach an award to the monitor. However, already when launching the monitor a lot of resistance was present in the profession of rheumatologists. To keep the relation workable, the RPB decided not to develop an award yet. Nevertheless, the former project manager of the RPB, Petra Kortenhoeven, mentioned that the absence of an award is not a limitation per se. In this way, patients can decide for themselves on what criteria they want to base their choice, instead of the patient organization doing so. A lack of distinctiveness is considered a shortcoming of the tool. The indicators do not give enough possibilities to make a clear distinction in quality of provided care. Another limitation mentioned by Petra Kortenhoeven is the difficulty of giving information on the quality of integrated care due to its complexity.

Unfortunately, shortly after the publication of the monitor, the RPB was abolished. The future of the tool is warranted though; it will be further developed in 2013 by a collaboration of the rheumatism fund, the Dutch Federation of Cancer Patient Organizations and MediQuest (P. Kortenhoeven, personal communication, August 7th, 2012).

Integrated care

The project investigating integrated care falls within the third category of presenting quality data: performers can only see their own performance data. Additionally, a general report on the type of care is available to anyone. The Dutch Federation of Cancer Patient Organizations (NFK) performed in collaboration with MediQuest a research on the quality of integrated care in the Netherlands.

The motivation for making quality of integrated care transparent has evolved in the past decennium. The directors of large patient organizations thought there was a lack of quality in integrated care and they wanted to give an incentive for improvement. The first idea was to develop a hallmark or award, but due to the complexity of integrated care this turned out to be hardly possible. An additional counterargument was the possibility of contradictory information for the patient: What if a certain hospital did get an award for breast cancer care but not for integrated care? This could be really confusing to the patient.

Hence, to give an incentive improving integrated care at the hospital level, another project was developed. A questionnaire containing a set of minimum conditions was sent to the hospitals, to get insight in the actual status regarding integrated care. Together with a questionnaire towards the patients and a CQI-survey, a dataset was constructed. These data are used for two goals. First, each participating hospital received a report with their results in comparison to the other participating hospitals. Second, a general report was written on the up to date status of the quality of integrated care. The response to the survey was low at first. According to the NFK, this is partly due to the complexity of the issue. Because integrated care is a matter of various specialisms, it is hard to point out who is directly responsible and therefore it is likely that people feel less addressed to respond. However, after making reminding phone calls to the hospitals, a response of 60% was reached.

The reports have been sent out to the hospitals in May 2012. The NFK is planning to do a follow-up by calling the hospitals to find out which actions have been undertaken as a consequence of the released data. Additionally, the NFK is

planning to do a spin-off project together with some hospitals that are willing to improve. These hospitals could then function as a 'well-performing example' for other hospitals. However, these plans have not come into being yet (L. van Loon, personal communication, September 8th, 2012).

§3.3. Quantitative data collection

A questionnaire, consisting of ten questions per initiative, was sent to all participating hospitals of the five initiatives. Dependent of the function of the respondent, questions were asked about one or more of these initiatives. The questionnaire is attached in attachment C. The answers given by the hospitals were the basis of the data analysis and the results. The composition of the questionnaire was based on two sources; literature and interviews. An overview of the literature is provided in the introductory part of this thesis. The explorative interviews with the health care providers described in the previous section are the second source on which the questions and multiple-choice answers of the questionnaire are based. In attachment E, the questions of the questionnaire are substantiated by literature or results from the explorative interviews.

An invitation for the online questionnaire was sent to 380 contacts whose names and addresses were obtained from the patient organizations involved. These were both quality functionaries as the medical professionals who delivered the performance data to the patient organizations. The number of questions for each respondent depended on the number of initiatives they were involved in. The questionnaire was programmed in software from MWM2, which is designed for online research.

The criteria

The awarding patient organizations use a set of minimum criteria that should be met in order to get the award. A combination of must-haves and a minimum number of other criteria is usual. Besides these criteria, other (performance) data are shown in the online monitors. These data can be used by the patients to base their choice on. The Dutch Federation of Cancer Patient Organizations used a set of minimum criteria for their project on integrated care as well. Based on these criteria, the hospitals received a report on their quality of integrated care. The Patient Organization for Rheumatism does not use a set of minimum criteria. They publish a large selection of available and applicable performance data and patients can decide what information they want to base their choice on. The most recent edition of the minimum criteria of the other initiatives can be found in attachment E.

Classification of criteria

The various patient organizations all use different types of quality criteria. In the literature, a common way to classify quality indicators is on the basis of origin into 'structure, process and outcome' (Harteloh & Casparie, 1998a; Mainz, 2003).

Structure indicators reflect the system's ability to meet the health care needs of its patients. They are relatively stable characteristics of the providers of care, their tools and resources and the physical and organizational settings in which they work. The structure indicators are meant to provide information on whether care is being provided under optimum conditions for delivering good health care (Mainz, 2003; Salzer, Nixon, Schut, Karver, & Bickman, 1997). Procedure volume, measured at either the surgeon or hospital level is a structure indicator as well (Birkmeyer, Dimick, & Birkmeyer, 2004). An example of a structure indicator is found in the criteria for the plume: 'The clinic has a separate production room, of which the door does not open into the waiting room'.

Process indicators assess what a health care provider does for the patient and how well that is done. They focus mainly on interpersonal aspects of care and technical skills in the delivery of services. A process indicator can be found in the criteria of the vascular hallmark: '95-100% of the elective arterial vascular surgeries is performed by or under supervision of a certified vascular surgeon'. A large advantage of process indicators is the lack of chance for major error or bias, which is present for outcome indicators. However, if patients do not understand how they relate to outcomes of care, they have only little value for them (Mainz, 2003; P. C. Smith, et al., 2009).

Outcome indicators are states of health or health events that follow care, such as death, quality of life, patient satisfaction, which are all end results. Because some outcomes can only be assessed after years, it might be of use to assess intermediate outcome indicators as well (Mainz, 2003). An example can be HbA1c results for diabetes patients or the example from BVN: 'At most 20% of the patients has remaining cancer tissue after the first breast-conserving surgery'. Outcome indicators are not easily manipulated and they direct the focus on the patients' health goals. Disadvantages of outcome indicators are difficulties in measurement and the influence of case-mix. An example of difficulties in measurement is wound-infection, where differences in severity are important but hard to measure. Case-mix is the influence of different factors, such as patient characteristics, on the health status of the patients, independent of the quality of health care. Additionally, outcome indicators have a need for large sample sizes to avoid selection bias and to detect statistically significant effects (P. C. Smith, et al., 2009).

Rademakers et al. (2011) found that for various groups of patients, when evaluating health care, process aspects had the greatest influence, followed by structure aspects. Outcome measures had the least influence on the appreciation the patients give their health care provider.

Table 1 gives an overview of the criteria used for the five awards that were studied, listing number of criteria and the number of must-haves, as well as the number of process, structure and outcome indicators that form part of the award scheme.

	Ribbon by BVN	Plume by Freya	Cardiovascular hallmark	Integrated care	Rheumatism monitor
N criteria	15	11	12	14	N/A
N must-haves	5	2	9	N/A	N/A
Other criteria	7/10	6/9	1/3	N/A	N/A
N structure indicators	7	8	7	3	N/A
N process indicators	6	3	5	11	N/A
N outcome indicators	2	0	0	0	N/A

Table 1: Classification of criteria

Market position of the hospital

In order to check for effect modification, the market position of all participating hospitals was determined. This was done by MediQuest using a map displaying the market tightness in the various parts of the Netherlands (Nationale Atlas Volksgezondheid, 2008). For some analyses, the results were stratified for hospitals in a monopolist position versus hospitals in a competitive position to check whether there were any differences in effect.

§3.4. Data analysis

Quantitative analyses were performed on the data collected through the questionnaire. This was done using the statistical software SPSS.

When analyzing the data, first all additional comments and open fields were read. Where possible, the data was complemented with this input. The statistical tests done were mostly chi-square test and binary logistic regressions. This is mentioned in the results section.

The questions of the questionnaire to which the results relate are mentioned in the titles of the results section.

4. Results

§4.1. Characteristics of the respondents

155 respondents completed the questionnaire; this is 40.8% of all respondents who received an invitation for participating. The respondents were staff members of 87 different hospitals, which means that response originated from 75.6% of all approached health care institutions. Some respondents such as quality functionaries, answered questions about more than one project. Furthermore, a few respondents argued that they did not know enough about the project to answer questions about it; they were directed to the end of the questionnaire immediately. These are not included in the response rate.

For full answering options of the questionnaire, see attachment D.

Because some staff members such as quality functionaries received questions about more than one project, the number of completed questionnaires is higher than the number of respondents. 129 respondents completed one questionnaire, and 26 respondents completed two or more questionnaires. Consequently, the total number of completed questionnaires is 202. In table 2, an overview is provided of the respondents per project, the percentage behind the number represents the share of the total of respondents. An additional division is made for whether or not the hospital received an award. The percentage shows what share of the responding hospitals received the specific award.

The patient organization for rheumatism decided, just before the questionnaire was sent out, not to disclose their respondents. Therefore, the questions about the rheumatism monitor were only sent to the general quality functionaries. This explains the small number of respondents for the rheumatism monitor. The number of respondents for the integrated care project is rather small as well. This is partly due to the relatively small number of hospitals participating in the integrated care project by the NFK. Furthermore, the data for this project have been delivered in 2011 and a fairly large share of the respondents answered that they did not know enough about the project (anymore) to answer the questions.

Out of the 163 respondents, 91 had a medical function such as doctor or nurse and 69 had a management or policy function. Three respondents fulfill an unknown function.

	N respondents (%)	Award	
		Yes (%)	No (%)
Plume	48 (23.8)	26 (54.2)	22 (45.8)
Ribbon	71 (35.1)	52 (73.2)	19 (26.8)
Vascular hallmark	57 (28.2)	51 (89.5)	6 (10.5)
Rheumatism monitor	8 (4.0)	n/a	n/a
Integrated care	18 (8.9)	n/a	n/a
N Total (%)	202	129 (73.3)	47 (26.7)

Table 2: The respondents per project

§4.2. Motivation for participating in the project (Q3)

The respondents could disclose their motivation for participating in the project by choosing one to five reasons for participating from a list and put these in order of importance. The first most important item was awarded five points, the second item four points, etcetera. In table 3, the results of this question are presented.

The first column shows the number of respondents that selected this option as a motivation for the hospital to participate in a monitor or awarding project. 'Profiling of the hospital within its type of care' was the most selected option. When adding the ranking that the respondents used for their answers, 'not participating leading to a negative image' is considered the most important reason for participating. The average score was calculated by multiplying the number of times a motivation was chosen in each relative position with the number of points awarded for that position, divided by the total number of respondents for that question.

Motivation for participating	N times chosen (N = 202)	Relative position (average score)
Not participating leads to a negative reputation	151 (74.8%)	1 (2.91)
Possible consequences for contracting by e.g. purchaser or cooperation partner	156 (77.2%)	2 (2.90)
Profiling of the hospital	186 (92.1%)	3 (2.39)
Offering choice-support to the patients	174 (86.1%)	4 (2.31)
Participation may have a positive effect on the intern granting of budget	111 (55.2%)	5 (2.30)

Table 3: Motivations for participating in the project for all respondents

It was assumed that medical staff may have different motives for participating in such a project than staff members with management or policy functions. When separating the results for the function of the person that made the decision to participate, a different order of motivations occurs. These results are shown in table 4. The second most important reason for medical staff, the possible consequences for contracting, comes on the fourth place for management and policy staff.

Profiling of the hospital, which appears to be very important for the management and policy staff, was the least important motivation for the medical staff.

A check was done to find out whether the motivation for participating is different for hospitals in an area with high market tightness than for hospitals in an area with low market tightness. Therefore, the results were stratified for this variable. However, no difference in motivation for participating was found between these groups.

Motivation for participating	N times chosen		Position (average score)	
	Management and policy staff (N=60)	Medical staff (N=112)	Management and policy staff	Medical staff
Not participating leads to a negative reputation	41 (68.3%)	87 (77.7%)	1 (2.82)	1 (2.98)
Possible consequences for contracting by e.g. purchaser or cooperation partner	43 (71.7%)	86 (76.8%)	4 (2.55)	2 (2.92)
Profiling of the hospital	56 (93.3%)	102 (91.1%)	2 (2.75)	5 (2.19)
Offering choice-support to the patients	57 (95.0%)	91 (81.3%)	3 (2.60)	4 (2.22)
Participation may have a positive effect on the intern granting of budget	32(53.3%)	64 (57.1%)	5 (2.07)	3 (2.42)

Table 4: Motivations for participating in the project, disaggregated for medical staff and management and policy staff

§4.3. Changes made due to the criteria (Q6 & Q8)

An important question in this study is how hospitals respond to the disclosure of performance data and awards and what changes they make accordingly. In the questionnaire was asked whether the hospital did or did not make changes (partly) as a consequence of the criteria of the project. If the answer was 'yes', the respondent could check on a list which items were changed or improved as a consequence of the award. The number of reported changes is displayed in table 5. When a hospital answered 'no' to the question whether any changes were made, this is analyzed as '0' reported changes.

Results were disaggregated for the projects with an award (ribbon, plume and vascular hallmark) and the projects without an award (integrated care and the rheumatism monitor). The projects without an award seem to have stimulated more changes than the projects with an award. Both correlations do not show any statistical significance though.

Another way of dividing the respondents into two groups is shown in Table 5 as well: the award-receiving hospitals opposed to the hospitals not receiving an award. No difference in the share of hospitals making changes was found between these groups. A small difference in the number of changes made as consequence of the criteria seems to appear: Hospitals receiving an award checked 13.8% more items in the list. This association is not significant though.

	Made changes as a consequence of the criteria		Average number of changes made as a consequence (N)
	Yes	No	
Projects with an award	92 (52.3%)	84 (47.7%)	1.35 (176)
Projects without an award	15 (57.7%)	11 (42.3%)	1.85 (26)
Received an award	68 (52.7%)	61 (47.3%)	1.40 (129)
Did not receive an award	24 (51.1%)	23 (48.9%)	1.23 (47)

Table 5: Changes made (partly) because of the criteria

In addition to these results, a comparison between the three different awarding projects has been made. Table 6 shows that a much larger share of the participants of the ribbon made changes because of the criteria than the participants of the plume and the vascular hallmark. A chi-square test shows a p-value of 0.004 for this difference. The average number of changes made by the hospital is significantly¹ higher for the ribbon than for the other projects as well, they made an average of 0.53 (43.3%) more changes than the other projects. This difference shows a p-value of 0.058 in an independent samples T-test.

	Made changes as a consequence of the criteria		Average number of changes made as a consequence (N)
	Yes	No	
Plume	17 (35.4%)	31 (64.6%)	1.32 (48)
Ribbon	47 (66.2%)	24 (33.8%)	1.76 (71)
Vascular hallmark	28 (49.1%)	29 (50.9%)	1.30 (57)

Table 6: Changes made (partly) because of the criteria, disaggregated per project

In addition to the results of the questionnaire, an overview was made of the number of hospitals that got an award. These data were available for the three awarding projects and are presented in table 7. The table shows both the number of hospitals getting an award after the last update of the criteria and after the last update of the data. This table supports the findings that hospitals make changes as a consequence of the criteria set by the patient organizations.

	Ribbon		Plume		Vascular Hallmark	
	Update of criteria	Update of data	Update of criteria	Update of data	Update of criteria	Update of data
Award	90	100	17	36	100	104
No award	26	16	54	47	37	33
Unknown	0	0	21	9	0	0

Table 7: The number of hospitals getting an award

¹ Significant at a significance level of 10%

What changes were made? (Q8)

Staff members that responded to have made one or more changes in their hospital (partly) due to the criteria checked on a list which items they changed (partly) because of the criteria. The results of this question are presented in table 8. The items of the checklist are on the rows, the percentage is the share of all respondents that checked each specific item.

The change that was checked most for all projects except the ribbon, is adjusted information provision towards the patients. For the ribbon, the most checked change due to the criteria was improved or changed digital registration. Registration in the national breast cancer audit is a must-have for receiving the ribbon. An additional improvement mentioned by respondents for the ribbon is participation in the CQ-index. Also, improvements for the purpose of reducing waiting times are mentioned by respondents for the ribbon. These are both criteria, although not must-haves.

The 'other, namely..' option was checked and answered 36 times. Nine of these were about an improvement in waiting times or accessibility, five were about the implementation or participation of a CQ-index or another patient satisfaction survey and six regarded improvements in integrated care, internal communication or a care pathway.

	Plume (N=17)	Ribbon (N=47)	Vascular hallmark (N=28)	Rheumatism monitor (N=5)	Integrated care (N=10)	Total (N=107)
Provision of information to patients is changed	<u>58.8</u>	36.2	<u>50.0</u>	<u>80.0</u>	<u>70.0</u>	<u>48.6</u>
Protocols are developed or changed	47.1	25.5	46.4	60.0	40.0	37.4
Digital registration is improved or changed	17.6	<u>51.1</u>	17.9	60.0	40.0	36.4
The multidisciplinary consultation is expanded	17.6	48.9	25.0	20.0	40.0	35.5
Facilities are improved or changed	41.2	12.8	32.1	60.0	10.0	24.3
Patients are divided over professionals in a different way to meet volume criteria	5.9	23.4	14.3	20.0	40.0	19.6
The medical team is expanded. or persons got certificated	5.9	17.0	32.1	20.0	10.0	18.7
Number of offered treatments expanded	0.0	10.6	21.4	40.0	10.0	13.1
Other..	35.3	40.4	25.0	0.0	40.0	33.6

Table 8: Percentage of respondents that made certain changes in their hospitals
The underlined numbers are the changes that were made most as a consequence of that certain project

Motivation for not making changes (Q7)

Not every participating organization made changes because of the criteria. 95 respondents (47.0%) answered they did not make any changes because of the criteria. Some of them added the explanation that they did make changes but those would have been made with or without the criteria, because they want to deliver the best care possible.

Of the respondents that did not make any changes, in 55.8% the given reason for this was that all criteria were already met. Nevertheless, six of them did not receive an award for their delivered care. For the vascular hallmark, this motivation was given by 89.7% of the respondents. For the ribbon it was in 66.7% of the cases and for the plume only in 19.4% of the cases the motivation for not making changes. Of these three awards, the plume has indeed the smallest share of hospitals getting an award. In 6.3% of the cases wherein no changes were made, the given reason was that the benefits of making changes do not outweigh the costs. One hospital added the explanation: *“For a small hospital like ours, it is simply impossible to meet the criteria”*. Additional motivations for not making changes mentioned were ‘no need for more patients’, or the impossibility of meeting a criterion due to budgetary or logistical affairs. One hospital answered that not meeting some criteria was a conscious choice. This hospital did receive the plume though, which indicates that it met the minimum number of criteria.

§4.4. Attitude of health care providers (Q4 & Q5)

Respondents were asked for their opinion on the influence of performance data and awarding on quality of care. The results of this question are provided in table 9. It is remarkable that the group that did not receive an award seems more positive about the effects of awarding on quality of health care than the group receiving an award. This is a significant¹ effect. For this analysis, the respondents were separated in one group thinking that awarding had a lot or a little influence and one group thinking that it had no influence. The odds ratio of thinking that awarding has a certain influence on health care is 3.86 (p-value: 0.034) for the group that did not receive an award compared to the group that did receive an award.

		Award	
		Yes	No
Publishing of performance data	A lot of influence (%)	56 (41.8)	32 (51.6)
	A little influence (%)	72 (53.7)	27 (43.5)
	No influence (%)	6 (4.5)	3 (4.8)
Awarding	A lot of influence (%)	42 (31.3)	21 (33.9)
	A little influence (%)	70 (52.2)	38 (61.3)
	No influence (%)	22 (16.4)	3 (4.8)

Table 9: The influence on quality of care of publishing performance data and awarding according to health care providers

Another question is whether medical staff has a different attitude towards performance data and awarding than policy and management staff. Table 10 shows that a larger share of the management and policy staff than of the medical staff thinks that both the publishing of performance data as awarding have a lot of influence on the quality of health care. A chi-square test shows a p-value of 0.076² for this correlation of publishing of performance data and attitude. The difference

¹ Significant at a significance level of 5%

² Significant at a significance level of 10%

between the share of management and policy staff and the share of medical staff thinking that awarding has a lot of influence on quality of care shows a p-value of 0.014¹ in a chi-square test.

		Function	
		Management and policy staff	Medical staff
Publishing of performance data	A lot of influence (%)	64 (54.2)	44 (38.3)
	A little influence (%)	51 (43.2)	65 (56.5)
	No influence (%)	3 (2.5)	6 (5.2)
Awarding	A lot of influence (%)	48 (40.7)	34 (29.6)
	A little influence (%)	53 (44.9)	68 (59.1)
	No influence (%)	17 (14.4)	13 (11.3)

Table 10: The influence on quality of care of publishing performance data and awarding according to health care providers – disaggregated per function

§4.5 Additional comments by the respondents

Additional comments on the projects were provided by 74 respondents. 39 of these comments were about the criteria. Respondents commented that the criteria should be stricter and more outcome criteria should be used. Also, respondents for the plume requested to add the outcomes of a patient satisfaction survey to the criteria. In contrary, the criterion of a minimum number of respondents for the CQ-index was rejected by some respondents of the ribbon. It is striking that one of the respondents that said that the CQ-index criterion should be dropped, did however become more active in approaching respondents for this questionnaire. A few respondents suggested that criteria should be in tune with the official (scientific) guidelines and they should be set in consultation with the medical professionals. Eight of the additional comments were that a check on the delivered data would be desirable. Seventeen comments mentioned the organization of the award. They would like more time for their response, a timely notion when the criteria are updated, and collaboration and alignment between the various parties collecting performance data.

¹ Significant at a significance level of 5%

5. Conclusion & Discussion

§5.1. Sub questions

The research question of this thesis is: “What are the effects of the various ways of publishing performance data used by patient organizations on health care quality improving actions by health care providers?” In order to answer this question, data was collected by sending a questionnaire to the health care providers. The results were combined with information on the projects and their criteria of the patient organizations. The sub questions and the answers to these will be discussed in the following section.

Are the motivations behind the choice for a specific way of publishing performance data in tune with the effects?

There is not much difference found in motivation for setting up a project between the awarding patient organizations, the patient organization for rheumatism and the integrated care project. The reason to choose for different ways of publishing the performance data was motivated by practicalities rather than by a deliberate choice dependent of the goal of the project.

The main reason for Freya, BVN and the cardiovascular group for setting up an award was providing information to their members. The possible effects of the awards on quality of care were considered a positive side effect. For integrated care, the main reason for starting up the project was giving incentives for change. The rheumatism monitor started as a choice-supporting instrument but developed towards a tool for quality improvement, and now it is used as such by the patient organization. Löffler (2001) mentioned another motivation awarding: introducing quasi-competition in the health care market. This was mentioned by none of the patient organizations. However, this might be more a task of the government.

Participation in the project is not very much driven by the desire to offer choice-support to the patients. Thus, the motivation for setting up a quality improving project is not always equal to the motivation for hospitals to participate in such a project. This is not necessarily a problem, as long as patient organizations keep the motives of the hospitals in mind when starting a project and searching for participation of the health care providers.

Is participating in the patient organizations' projects based on intrinsic motivation to deliver good care or on the wish for a good reputation?

The decision for participating in an awarding project or choice-supporting instrument is mainly based on a 'negative decision', namely that not participating may lead to a negative reputation. This supports the conclusion that the possible negative effects outweigh the positive effects. This finding is endorsed by the research on reputational risk by Power et al., who found that US universities' reaction to rankings is based on anticipating on possible negative consequences of coming in low on important rankings (Power, Scheytt, Soin, & Sahlin, 2009).

For management and policy staff, the next most important reason for participation is 'profiling of the hospital'. The medical staff does not seem to be that interested in profiling of the hospital. Probably, they do not feel connected with the reputation of the entire hospital so much. It can be concluded that the fear of a bad reputation is more important than the intrinsic motivation of showing to deliver good care. However, when interpreting the results it is important to keep in mind that 'profiling of the hospital' has been selected as a motivation by 91.1% of the medical staff, it is just often marked as less important than other motivations.

For medical staff, the possible consequences for contracting are almost as important as is reputation. This is not a big surprise, since their financial security is dependent of the contracts with health care purchasers.

Neither the possible negative reputation of the hospital as the consequences for contracting is based on the intrinsic motivation to deliver good care. Therefore, we can conclude that the motivation for disclosing performance data and participating in awarding projects is driven by external factors rather than by intrinsic motivation to show that the best possible care is delivered.

Although the number of participating hospital is high for most projects, the work load is sometimes seen as a threshold for participating. In the exploring interviews, respondents mentioned that the planning of the organizations requesting data is usually not communicated to the health care providers in advance. Some respondents suggested that a year calendar could be of help, containing information on the deadlines and content of the various performance indicators that have to be delivered to the various parties.

What changes are made by the health care organizations as a consequence of the initiatives?

All patient organizations stated that an important goal for their instrument was to incentivize improvements in quality of health care. About half of the respondents (53.0%) said they made changes in their hospital (partly) due to the criteria. From the respondents that not made any changes, a large share said this was because they were already meeting all criteria. Only 20.8% of all respondents did not make any changes because of the criteria of the initiative while they were not fulfilling all criteria.

Participants of the ribbon made the most changes because of the project. A possible explanation is that there has been a lot of attention for breast cancer in the last years. The Dutch Breast Cancer association and The Pink Ribbon Foundation manage to create a lot of attention for breast cancer every year. Besides, the breast cancer monitor got a lot of media-attention in the past years. Therefore, hospitals might have a higher motivation for getting the award for breast cancer care than for, say, the cardiovascular hallmark. In addition, the large amount of changes made by participants of the breast cancer monitor might have to do with the composition of the criteria. The ribbon is the only award using outcome indicators. Also, it has the largest number of process indicators, which might be easier to adapt than structure indicators. Also process indicators are appreciated by patients, as they have the most influence on the patients' judgment of quality of health care (Rademakers, et al., 2011).

The change that most responding hospitals have made was an adjusted information provision towards patients. This is indeed among the criteria for all projects except for the ribbon. The adjustments made most by participants of the ribbon were an improved or changed digital registration and expansion of the multidisciplinary consultation. Digital registration of the patients and a minimum of 90% of the patients discussed in the multidisciplinary discussion are both must-haves for the ribbon.

These results show that the composition of the criteria matters and that by choosing the criteria carefully, the patient organizations can influence the adjustments made in hospitals. Hospitals should make a fair balance between the number of must-haves and the number of 'other' criteria. If an award consists of must-haves only, it would easily get 'impossible' for (small) hospitals to get the award, so they might not try at all and make no adjustments in their delivered care. However, must-haves are a useful instrument to put emphasis on the most important criteria.

Marshall et al. (2000b) stated that health care providers in competitive markets are more likely to implement changes in response to performance data than those in a monopolist position (Marshall, et al., 2000b). The results do not support this statement though. This might have to do with a limited awareness of the health care providers of their position as a

competitor. It could also be the case that all hospitals feel some kind of competition with the surrounding hospitals, independent of the market tightness in the area.

For hospitals that did not make any changes because of the criteria, in about half of the cases the given reason was that the criteria were already met. This explanation was given most by respondents of the vascular hallmark and least by respondents of the plume. This is in tune with the fact that the share of hospitals having the award after the latest update of the criteria was the smallest for the plume: 29.7%, compared to 52.1% having the vascular hallmark and 73.1% having the ribbon.

Does the hospital's position in the market influence its response to performance data?

Nowhere in the data was a difference found between the hospitals in an area with a high market tightness compared to the hospitals with a low market tightness. Therefore we can draw the conclusion that the market position does not influence the hospital's response to performance data and awarding. This is in contrast with the literature, suggesting that health care providers in competitive markets are more likely to make quality improving changes than those in a monopolist position. This is in contrast with the findings of Marshall et al (2000b), who reported that hospitals in competitive markets are more likely to implement changes due to performance indicators than hospitals in a monopolist position.

How is the influence of awards on quality of care judged by health care providers?

The influence of awarding on quality of health care seems to be higher valued by those who did not receive the award than by those who did. In other words, not getting an award has more impact on the provider than getting one. This finding corresponds with the result that participating in such a project often seems to be a 'negative' choice: "Not participating leads to a negative reputation". In other words, the (apparent) negative effects are larger than the positive effects.

This might be considered contradictory with the findings of Hafner et al., who found that lower performing hospitals are more likely to question validity of data or express concerns that public reporting portrays unfair images of the delivered quality. However, this is not exactly the same as thinking that awarding has an influence on quality of care. Thus, those who did not get the award might think that awarding does have an influence on health care quality, but may question whether that is justified. Further research should make a distinction between these two.

§5.2. Conclusion

In answer to the research question, we can conclude that all projects have a quality improving effect on hospitals. Due to the criteria more than half of all hospitals made changes in their way of providing health care. The changes made most by the hospitals are an adjusted information provision towards patients, adjusted protocols and a started or improved digital registration. These are all process indicators, which are considered important by patients when evaluating the quality of health care.

The quality improving effects do not appear to be larger for awarding projects compared to non-awarding projects such as the rheumatism monitor. However, the ribbon for breast cancer care is associated with significant more changes in their health care delivery process than the other projects. This might be caused by both the large amount of media attention for this initiative and the composition of the criteria. Patient organizations could enlarge the quality improving

effects of their project by stimulating patients to act according to the information. When this is the case, the trigger to meet all criteria becomes higher for the health care providers (Dorresteijn, 2012).

It might be obvious but it is important that patient organizations keep in mind what their goal is. This becomes clear by the example of a vascular surgeon about the recently released varicose veins hallmark: *“One of the criteria is that patients can call with a doctor about their varicose veins 24 hours a day. That looks really patient friendly of course, but it is absurd in fact, that you need this for something you have been probably suffering from for years already.”* Small hospitals may not be able to meet such criteria and then do not receive the award. This could eventually mean that the varicose veins care will concentrate more and patients will have to travel further for this type of care. The question is whether this is in favor of their members.

The interviews with the patient organizations demonstrated that they are eager to update their criteria to keep on challenging the hospitals to improve their care process. This I consider a positive goal. However, the BVN stated that they define their volume criteria stricter than the scientific association. When assuming that these guidelines are scientifically substantiated, I question the value of tightening for instance the volume criteria when this means that for smaller hospitals it becomes impossible to meet the criteria and receive the award. Patient organizations would do better when accepting that some aspects of care are on a certain desirable level and then shift the focus to other aspects.

However, a lot of discussion on especially these volume criteria is going on now in the Netherlands: surgeons state that there is no difference in quality between surgeons performing 60 or 80 breast cancer surgeries per year and that these all provide good quality care, while the Dutch Cancer Society stated that a minimum of 150 surgeries per year should be performed per surgeon to guarantee good quality (Weeda, 2012).

Mukamel et al. (2007) found that the effects of publishing performance data on health care providers are larger when these providers believe that patients or purchasers use this information in the choice process. Therefore, for further research it would be desirable to investigate whether the beliefs of providers about the usage of the data by patients influence their efforts to get a positive outcome.

§5.3. Strengths and limitations

An extensive report on quality instruments developed by patient organizations, published by IQ healthcare, was released one week before the final version of this thesis was handed in. The report could have delivered useful background information for this research if it would have been available earlier. With this background information, the questionnaire for the health care providers could have been defined even more specific. However, the report by IQ healthcare focuses on all aspects of quality instruments, such as effects on patients, health care purchasers, general practitioners as well as health care providers (Winters, et al., 2012). Their section on health care providers is limited though, and focuses mainly on the knowledge of these instruments by health care providers and their judgment on it, in contrary to this thesis which focuses more on the *effects* of the instruments on health care providers.

A strength of this research is the large group of respondents. A total of 202 questionnaires was completed by 155 respondents. This supplied useful information on the ribbon, the plume and the vascular hallmark in particular. Regrettably, only a small number of health care providers completed the questionnaire for the rheumatism monitor and the integrated care project, the two non-awarding projects within this research. This makes a reliable comparison between awarding and non-awarding projects problematic. Additionally, the combination of quantitative and qualitative data is considered a strength of this research. In this way, statistical checks could be done on the data, but these are completed by specific remarks of the respondents which may nuance the data.

6. Glossary and abbreviations

BVN – *Borstkankervereniging Nederland*

Cardiovascular Group – *Hart & Vaatgroep*

Dutch Breast Cancer Association – *Borstkankervereniging Nederland*

Dutch Federation of Cancer Patient Organizations – *Nederlandse Federatie van Kankerpatiëntenorganisaties*

Dutch health care inspectorate - *Inspectie voor de gezondheidszorg*

Dutch Patient Consumer Federation – *Nederlandse Patiënten Consumenten Federatie*

Integrated Care – *Ketenzorg*

NFK - *Nederlandse Federatie van Kankerpatiëntenorganisaties*

NPCF - *Nederlandse Patiënten Consumenten Federatie*

Patient Organization for Rheumatism – *Reumapatiëntenbond*

Plume – *Pluim*

Rheumatism Monitor – *Monitor 'kies uw reumazorg'*

Ribbon – *Lintje*

Vascular Hallmark - *Vaatkeurmerk*

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Attachment A: Topic list for unstructured interviews

- Job description of respondent
- Motivation for (non-)disclosure of the performance indicators
- The perceived goal of disclosing performance data
- Actions taken by the hospital to improve quality of care, based on the minimum criteria
- Possibilities for improvement of the project

Attachment B: Overview of health care awards in the Netherlands

Name of award	Collaboration with MediQuest	Year of launch
Smiley's	No	2006
Vascular Hallmark	Yes	2007
Care map Netherlands	No	2009
Ribbon	Yes	2010
Patient guide blood- and lymphatic cancer	Yes	2010
Patient guide colon cancer	Yes	2010
Pulmonary care meter	Yes	2010
Varicose veins care	Yes	2011
Choose your Rheumatism care	Yes	2011
Fertility care monitor	Yes	2012
Rehabilitation care	Yes	2012
Patient guide stoma care	Yes	2012
Patient guide prostate cancer	Yes	2012
Hallmark Elderly Friendly Hospitals	Yes	2013

Attachment C: Questionnaire (translated version)

1. What is your function within the hospital?
2. Who made the decision of participating in [the project]* in your hospital?
 - Quality functionary or comparable function
 - Medical professionals at the involved department
 - Department manager
 - Board of directors / Management
 - Other, namely..
3. To what extent were the following motivations applicable in the decision to participate in [the project]*?
Please put in order of importance.
 - Offering choice-support for the patients
 - Profiling the hospital within [type of care]**
 - Not participating leads to a negative image
 - Possible consequences for contracting by e.g. health care purchaser or cooperation partner
 - Participation may have a positive influence on internal allocation of budget for (further) quality improvement
4. Do you think awarding has an influence on quality of care?
 - A lot of influence on quality of care
 - A little influence on quality of care
 - No influence on quality of care
5. Do you think publishing performance data, independent of awarding, has an influence on quality of care?
 - A lot of influence on quality of care
 - A little influence on quality of care
 - No influence on quality of care
6. Did your hospital make any changes, partly because of the criteria of [the project]*?
 - Yes (→ question 8)
 - No (→ question 7)
7. Why did your hospital not make any changes because of the criteria of [the project]*? (→ question 9)
 - The hospital already met all criteria
 - The benefits did not outweigh the costs
 - Other, namely..
8. What changes have been made in your hospital, partly because of the criteria of [the project]*, for instance to meet the criteria?
 - Protocols are developed or adjusted
 - The medical team is expanded, or persons got certificated
 - The multidisciplinary consultation is expanded
 - The information provision towards patients is adjusted
 - Digital registration is improved or adjusted
 - Patients are divided differently over medical professionals because of a volume requirement
 - The treatments offered are expanded
 - Other, namely...

9. Do you have suggestions for improvements for [the project]*, in order for it to have a larger influence on health care quality?

10. Do you have any commentary for this research?

*The project is dependent of the respondent. This can be; The plume, the ribbon, the vascular hallmark, the rheumatism monitor or the integrated care project.

**Dependent of the project, the type of care can be; fertility care, breast cancer care, vascular care, rheumatism care or integrated care.

Attachment D: Substantiation of the questionnaire

Question	Substantiation
What is your function within the hospital?	Background information
Who made the decision of participating in the project in your hospital?	Hamblin (2007) described the four incentives to improve quality of care and made a division between intrinsic motivation and motivation guided by incentives. These might vary between the different functions of the staff member making the decision for participating.
To what extent were the following motivations applicable in the decision to participate in the project?	The answering options are a combination of motivations for hospitals known by both the patient organizations and the MediQuest project managers.
Do you think awarding has an influence on quality of care? Do you think publishing performance data, independent of awarding, has an influence on quality of care?	Hafner et al. (2011) found, like some other studies, an association between the performance score of a hospital and their opinions about public reporting. That is to say, lower performing hospitals are more likely to question validity of data or express concerns that public reporting portrays unfair images of the delivered quality
Did your hospital make any changes, partly because of the criteria of the project? Why did your hospital not make any changes because of the criteria of the project?	Releasing performance data seems to stimulate quality improvement at the hospital level (Fung, et al., 2008).
What changes have been made in your hospital, partly because of the criteria of the project, for instance to meet the criteria?	The answering options are based on the criteria of the projects.
Do you have suggestions for improvements for the project, in order for it to have a larger influence on health care quality?	Research points out that physicians are interested in but skeptical about such data and consider it to be of minimal use (Marshall, et al., 2000b).

Attachment E: The sets of criteria**The Ribbon**

<i>Must-haves: A1, B, C1, C2 and K</i>		
<i>For the award: at least 7 of the other 10</i>		
A1	The hospital performs surgery on at least 70 patients per year with a primary breast cancer.	Structure
A2	At least two surgeons perform breast surgery. Each surgeon performs surgery for at least 35 patients with a primary breast cancer.	Structure
B	At most 15% of the patients has remaining cancer tissue after the first breast-conserving surgery	Outcome
C1	Each breast cancer team consists of at least: one oncological surgeon, a radiologist, a radiotherapist, a pathologist, an internist-oncologist, a mamma care nurse/nurse specialist.	Structure
C2	At least 90% of the patients is discussed in the multidisciplinary team before treatment and at least 90% of the patients is discussed in the multidisciplinary team after surgery.	Process
D	These diagnostic exams take place on the first day: - Palpation of the breast for imaging - Cytological puncture or histological puncture	Structure
E	90% of the patients with a primary surgery gets surgery within five weeks after biopsy.	Process
F	The hospital offers the possibility of a direct reconstruction in the own hospital by a plastic surgeon that is part of the multidisciplinary team.	Structure
G	Patients have one clear contact from diagnosis until aftercare. This is a nurse specialized in mamma care or a nurse specialist.	Structure
H	The need for psychosocial care is mapped for all breast cancer patients using a validated signaling tool.	Process
I1	The next facilities are available at the location or are used somewhere else: - Cito cytology - Histological biopsy - Stereotactic biopsy - Hormone receptor test routine - Her 2 neu test as a routine - Cytological puncture or histological puncture - Sentinel node procedure - Freezing of tumor tissue - Freeze Coupe - Breast-MRI	Structure

I2	Each patient gets offered a mamma print (according to the latest insights).	Process
J1	The hospital delivers at least 60% of all treated patients with breast cancer for the purpose of the CQ-index mamma care.	Process
J2	In the national benchmark, the hospital gets a score of three stars for at least one dimension and scores nowhere one star.	Outcome
K	The hospital registers all breast cancer patients for the purpose of the national breast cancer audit.	Process

<i>Must-haves: A1, B, C1, C2 and K</i>		
<i>For the award: at least 7 of the other 10</i>		
A1	The hospital performs surgery on at least 70 patients per year with a primary breast cancer.	Structure
A2	At least two surgeons perform breast surgery. Each surgeon performs surgery for at least 35 patients with a primary breast cancer.	Structure
B	At most 15% of the patients has remaining cancer tissue after the first breast-conserving surgery	Outcome
C1	Each breast cancer team consists of at least: one oncological surgeon, a radiologist, a radiotherapist, a pathologist, an internist-oncologist, a mamma care nurse/nurse specialist.	Structure
C2	At least 90% of the patients is discussed in the multidisciplinary team before treatment and at least 90% of the patients is discussed in the multidisciplinary team after surgery.	Process
D	These diagnostic exams take place on the first day: - Palpation of the breast for imaging - Cytological puncture or histological puncture	Structure
E	90% of the patients with a primary surgery gets surgery within five weeks after biopsy.	Process
F	The hospital offers the possibility of a direct reconstruction in the own hospital by a plastic surgeon that is part of the multidisciplinary team.	Structure
G	Patients have one clear contact from diagnosis until aftercare. This is a nurse specialized in mamma care or a nurse specialist.	Structure
H	The need for psychosocial care is mapped for all breast cancer patients using a validated signaling tool.	Process
I1	The next facilities are available at the location or are used somewhere else: - Cito cytology - Histological biopsy - Stereotactic biopsy - Hormone receptor test routine - Her 2 neu test as a routine - Cytological puncture or histological puncture - Sentinel node procedure - Freezing of tumor tissue - Freeze Coupe - Breast-MRI	Structure

I2	Each patient gets offered a mamma print (according to the latest insights).	Process
J1	The hospital delivers at least 60% of all treated patients with breast cancer for the purpose of the CQ-index mamma care.	Process
J2	In the national benchmark, the hospital gets a score of three stars for at least one dimension and scores nowhere one star.	Outcome
K	The hospital registers all breast cancer patients for the purpose of the national breast cancer audit.	Process

The Plume

<i>Must-haves: 1 and 9</i>		
<i>For the award: at least 6 of the other 9</i>		
1	The medical professional provides both verbal and written information (or refers to digital leaflets) about the diagnostic exams and treatments and related chances and risks, focused on the situation of the individual patient.	Process
2	The medical professionals tell every patient verbal, written or digital about the existence of patient organization Freya.	Process
3	The clinic participates twice a year in a regional consultation.	Structure
4	The laboratory takes part in at least three of the semen-sendings of the SKML.	Structure
5	The medical exams are performed without needless repetition, because the results are adopted from another clinic in case of one of the following exams: hysterosalpingography, laparoscopy, MRI, hysteroscopy.	Structure
6	The patient is offered the possibility of getting an intravenous or intramuscular opioid when an IVF-puncture is performed. <i>* This only applies to IVF-clinics and transport clinics.</i>	Structure
7	The practitioner or nurse discusses with every patient the possibilities for psychosocial support (for instance with a psychologist or social worker) and this is established in a protocol.	Process
8	The clinic performs at least every second year a patient satisfaction research, focused on fertility care.	Structure
9	Fertility treatments can take place 7 days a week, except for three weeks per year in which the laboratory is closed.	Structure
10	The waiting room of the fertility clinic is separated from the obstetrics waiting room.	Structure
11	The clinic has a separate production room, of which the door does not open into the waiting room	Structure

Cardiovascular Hallmark

<i>Must-haves: A1, A2, B1, B2, C2, D1, E, F1, G</i>		
<i>For the award: at least one of the other three</i>		
A1	At least two by the Dutch Association of vascular surgery certified vascular surgeons are working at the hospital location.	Structure
A2	95-100% of the elective arterial vascular surgeries is performed by or under supervision of a certified vascular surgeon	Process
B1	At least one intervention radiologist, registered at the NGIR with the note 'vascular', is working at each hospital location	Structure
B2	At least 80% of the elective vascular percutaneous interventions is performed by or under supervision of an at the NGIR registered intervention radiologist with the note 'vascular'.	Process
C1	Besides vascular surgeon and intervention radiologist, the next disciplines are at the hospital location available and when necessary involved in diagnosis and treatment: cardiologist, internist registered with focus on vascular care, neurologist, nurse with specialization in vascular disease.	Structure
C2	A regular multidisciplinary patient discussion is performed wherein the diagnosis and treatment are discussed, at least with vascular surgeon and intervention radiologist.	Process
D1	A wide range of treatment services is offered: conservative, surgery and endovascular/percutaneous.	Structure
D2	The hospital location offers cardiovascular risk management and this is established in a protocol. Cardiovascular risk management contains of: diagnostics, treatment and follow-up of risk factors for heart- and vascular diseases, including lifestyle advice and guidance.	Process
E	At least the following diagnostic exams can be performed at the hospital location: Walking test, vascular Doppler, duplex scanning, angiography, CTA or MRA.	Structure
F1	For the care of acute patients, a demonstrable 24/7 coverage is established, possibly in association with other parties in the region by the partnership vascular surgery.	Structure
F2	For the care of acute patients, a demonstrable 24/7 coverage is established, possibly in association with other parties in the region by the partnership intervention radiology.	Structure
G	For hospitals that perform surgery on abdominal aorta aneurysm: A minimum of 20 surgeries per year is done.	Process

Integrated care

1A	Patients/clients, client council and patient organization are involved in the development and evaluation of integrated care.	Process
1B	Appointments are made with each patient about the role and responsibilities of the patient. These appointments are registered in the patient's care plan and are known by all involved caregivers.	Process
2A	The hospital and its chain partners have a quality management system which continuously offers the possibility of improving the integrated care.	Structure
2B	The integrated care is evaluated yearly on the basis of: - Structure-, process- or outcome indicators addressing integrated care - Registered complaints, mistakes or almost-accidents in relation to the chain - The judgment of patients/clients about the integrated care It is known in the chain who is responsible for this evaluation.	Process
2C	The collaboration within the chain is evaluated periodically. This evaluation is conducted at the hospital level, specialism level and disease level. It is known in the chain who is responsible for this evaluation.	Process
3A	A connection exists between the Hospital Information System and a referral system with at least these functionalities: - The automatic placement of the electronic referral letter in the Hospital Information System - The electronic request of diagnostics	Structure
3B	The hospital makes the appointment with the GP that the hospital informs the GP on: - The diagnosis - The care plan - An up to date plan of medication - The established response on treatment - Discharge - In what case contact with the hospital is required - Who must be contacted when contact with the hospital is required	Process
3C	Every patient with a chronic disease is discussed multidisciplinary before establishing the care plan. Every patient is discussed multidisciplinary after treatment or care as well. The results of the discussion are registered in the patient's file.	Process

3D	<p>The hospital makes the appointment with the regular residence of the patient or the caregiver to whom is referred, that it informs the hospital about:</p> <ul style="list-style-type: none"> - The diagnosis - The care plan - An up to date plan of medication - The established response on treatment - Discharge - In what case contact with the hospital is required - Who must be contacted when contact with the hospital is required 	Process
3E	<p>Within the chain, appointments are made on who delivers which care and at what moment in the care process:</p> <ul style="list-style-type: none"> - Within the organization - With the primary caregivers - With the tertiary caregivers <p>Registered is:</p> <ul style="list-style-type: none"> - Who supports or stimulates the self-management of the patient - Who gives disease specific information and education to the patient - Who informs the patient about the organization of integrated care - Who informs the patient about costs within the chain and possible fees - Who informs the patient about the division of responsibilities - Who communicates with the patient about which patient data may be shared with the chain - Who screens the patient on the need of psychosocial care - Who guides the patient during the phases of the care process <p>These appointments are documented on paper:</p> <ul style="list-style-type: none"> - Cooperation agreements at management level - A chain wide care path - Regional trans-mural appointments, based on the national guideline 	Process
3F	<p>For each patient, the division of responsibilities is registered in the care plan and/or the patient's file. Registered is:</p> <ul style="list-style-type: none"> - Which caregiver is the final responsible person for the entire care to the patient - Which caregiver coordinates the entire care - Which caregiver is the contact for the patient for questions and ambiguities - Which caregiver or which part of the organization is the contact for the patient in acute situations 	Process
3G	<p>Each file is designed in a structured way and electronically available:</p> <ul style="list-style-type: none"> - For all caregivers involved in the care process - For the patient 	Structure
4A	<p>The involved caregivers give unambiguous information to the patient.</p>	Process

5A	<p>At the intake and discharge of each patient, medication verification takes place</p> <ul style="list-style-type: none">- The hospital has made a protocol 'transfer of medication data', based on the guideline 'transfer of medication data in the chain'- When discharged from the hospital, all changes in or additions to the medication overview and other relevant medical and pharmaceutical data are transferred to:<ul style="list-style-type: none">- The pharmacy- The patient's GP <p>And, if applicable:</p> <ul style="list-style-type: none">- The thrombosis service- The homecare organization- The residence where the patient stays	Process
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