THE STAKEHOLDER LANDSCAPE IN THE PUBLIC HEALTHCARE PROCESS—CHALLENGES, ELEMENTS, AND IMPLICATIONS FOR STAKEHOLDER MANAGEMENT

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ABSTRACT

The complexity, multifunctionality and multidisciplinary nature of public healthcare have created a challenging environment in which to plan, organize and manage healthcare processes. Among the main challenges are the governance model and the fact that there are numerous stakeholders. This study analyses the regional public healthcare process through stakeholder analysis and an evaluation of the stakeholder landscape. The overall purpose of this study is to describe the complexity of stakeholder management in our healthcare process case study and describe what impacts stakeholder management and landscape have on healthcare process management. It also provides stakeholder landscape as a method to plan and manage public processes containing numerous stakeholders.

Based on the analysis of our healthcare process case study (Northern Ostrobothnia Hospital District), complexity (both numbers and relationships), uncertainty, dynamism and institutional context all pose challenges for the public management. Surprisingly, our informants gave incoherent accounts of formal – not to mention informal – stakeholder salience. There is evident potential to utilize stakeholder landscaping, as well as its social and healthcare development and management elements (planning, organizing, and implementing), to achieve more efficient and effective results. The method applied in this study can be seen as an important contribution to public healthcare process management.

Keywords *- governance, stakeholder analysis, stakeholder landscape, stakeholder management, stakeholder salience.*

INTRODUCTION

Healthcare processes are typically complex, containing multifunctional and multidisciplinary collaboration where collaboration crosses two or more industries within same sector, for example a municipality between administrative branches and entities producing services (e.g., Lockhard-Wood, 2000; D'Amour et al., 2005; Moran et al., 2007). The

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number of and different operators, such as private and public sectors, patients and decision-makers at city and state level results complexity to healthcare service production. In addition, healthcare process development and new technology introductions will result dynamism to healthcare processes. National healthcare systems typically differ from each other especially in financial and operational models. (De Waal et al., 2012) However, despite different national healthcare environments, basically all European healthcare processes have numerous stakeholders with their own interests, perspectives, and priorities, which can often conflict between each other's (Moran et al., 2007; Hudelson et al., 2008; Muntlin et al., 2006). Thus, a healthcare process and related organization itself form a fundamentally vague and complex social system (Begun et al., 2003; Zimmerman, 2010), where changes are challenging to introduce (Aubry et al., 2014).

The specific features of Finnish healthcare system are that it is mostly publicly and only partially privately organized, however, decentralized and mostly funded by government. Cities and municipalities are obliged to independently organize healthcare services defined by law – public healthcare. Then for example, specialized healthcare can be produced both publicly and privately. However, cities and municipalities have full independence how they organize it. Acute care is fully produced by the public sector instead. Private healthcare is provided in the private clinics and occupational healthcare can be provided either in healthcare centers or bigger organizations' own medical centers or in private clinics. Our generic definition of a healthcare process is in line with the definition of a health system given by the World Health Organization (WHO), namely that it consists of all organizations and actions promoting or maintaining health. Thus, it is the organization of people, institutions and resources that deliver healthcare services at different levels to meet the health needs of target populations.

A stakeholder can be defined as a group or individual which or who has a vested interest in a project or its outcomes (Mitchell et al., 1997; Olander, 2007; Aaltonen et al., 2015). According to the size of an organization, there can be anywhere from tens of to several hundred stakeholders. Management can select stakeholders and involve them in organizational activities; however, these stakeholders are independent and therefore not directly controllable (Blair et al., 1990). Therefore, different kinds of models for stakeholder analysis, classification and management have been created (Blair et al., 1990; Mitchell et al., 1997; Olander, 2007; Aapaoja and Haapasalo 2014). Due to the complexity in healthcare process and multitude of stakeholders, already Fottler et al., (1989) described main classes for healthcare as internal, interface and external stakeholders. There are also more recent studies mainly just listing different types of healthcare process stakeholder (e.g., Mantzana et al., 2007; McLeod and Clark, 2009), without analyzing stakeholders in more detail.

Organizations have relationships with various groups and can create and maintain the support of such groups by considering and balancing their relevant interests (Lin and Lee, 2011). Stakeholder analysis starts with identifying and classifying key stakeholders (Aapaoja and Haapasalo 2014). After identification, questions are asked about their positions, interests, influences, inter-relations, networks, and other characteristics concerning their past and present positions and future potential. The results are typically presented as

stakeholder maps, along with the power-interest matrix of the stakeholders (Mitchell et al., 1997; Olander and Landin, 2005; Olander 2007), not only as organizational charts.

Healthcare environments are much different from the non-healthcare environments and the stakeholder setups also vary considerably. Therefore, originated concepts of stakeholders may not be directly applicable in healthcare setting (McLeod and Clark, 2009) where organizational structure and interactions among its stakeholders are very complex. Stakeholder analysis serves an organization and its various actors as a guide to identifying, planning, and implementing strategies for managing stakeholders and their relationships and, in particular, to utilizing the full potential of various stakeholders to develop healthcare. It would be an understatement to describe the decision-making of governance of national, regional, and institutional healthcare systems and processes as complicated. If we look at healthcare processes and organization through stakeholder management, it is evident that a more straightforward structure can be created. Instead of just listing individual stakeholders or creating extensive maps of stakeholders Aaltonen and Kujala (2016) have created a stakeholder landscape model to analyze describe the complex stakeholder environment structurally and logically, however, applications to healthcare process environment is missing. Therefore, this study explores the regional healthcare process through stakeholder analysis and stakeholder landscaping. In this study, we demonstrate the need for stakeholder analysis and landscaping to enable a comprehensive understanding of a complex process management. We have condensed these considerations into the following research questions:

Q1. How can stakeholder analysis and landscaping be combined into a research framework?

Q2. What are the challenges of stakeholder analysis and landscaping in the healthcare process?

Q3. What are the implications of stakeholder analysis and landscaping for the healthcare process?

Our approach is qualitative. First, we reviewed the stakeholder analysis and landscaping literature to construct a framework to analyze the regional healthcare process. We selected one hospital district and its healthcare process as our unit of analysis. We selected one hospital district and its healthcare process as our unit of analysis, Northern Ostrobothnia Hospital District (NOHD). NOHD was reorganizing their hospital-level development of strategic and operative processes, while building new future hospital, which offered need for our analysis, but also fruitful and rich data platform for our research. The main idea of our approach in our research is validate the applicability of stakeholder analysis and landscape framework in the NOHD case. We first organized a workshop to establish a basic understanding of the stakeholders; then, we used a snowball sampling technique to recruit stakeholders whom we interviewed about their views on complexity, uncertainty, dynamism, and institutional context. Additionally, we organized a validation workshop to carry out stakeholder mapping and salience. Finally, we outlined the implications for stakeholder management in a healthcare process. This study aims not to evaluate the managerial level of our case study, but to demonstrate the improvement potential through stakeholder management methods.

LITERATURE REVIEW

In complex and multi-layered operations, a stakeholder environment creates different challenges for both strategic and operative processes. In the strategic level the variety of relationships increases the challenge of managing stakeholders, some of the relationships may be critical, strategic, and long-term and require careful attention and other may not as important in the long run. E.g., in the front-end of the projects, when many far-reaching strategic decisions concerning the objectives, processes and organizing of the project, and decisions on the engagement of stakeholders and the overall strategy of the project need to be made, the assessment of stakeholder landscape supports managers in their decision making (Aaltonen and Kujala, 2016). In the operative process level stakeholder management enables classifying the stakeholders e.g., according to salience and the further allocate appropriate managerial action how to involve specific stakeholders early (Tampio and Haapasalo, 2022).

Stakeholder analysis

The stakeholder management has been originally evolved from business management and is designed to describe, understand, analyze, and manage stakeholders. The most studied area has been in project management because uniqueness and set timelines requires effective and fast actions. (Tampio et al., 2022) Stakeholder analysis is essential in the stakeholder management process enabling management to understand the stakeholder environment and develop appropriate engagement strategies (Mok and Shen, 2016).

Stakeholder analysis could be compared somewhat to organizational network analysis, which is a method that typically focuses on the connection between individuals and the organization. A social network perspective along with the stakeholder perspective have been used by various scholars in the construction projects to present organizational structures and provide new insights for the project management (Loosemore et al., 2020). As the traditional conceptualizations of the project stakeholder analysis have been criticized due to their limitations in capturing the complexity of the inter-organizational relationships of current construction projects (Pryke et al., 2017). The focus on social, relational, and network dimensions of the construction projects reflect the complexity and dynamics of stakeholder network relationships which would facilitate better management of the large and complex projects (Pryke and Smyth, 2006; Pryke, 2012). Stakeholder analysis asks which actors should be involved and entails determining how stakeholders influence the decision-making process and how to manage different types of stakeholders (Brugha & Varvasovsk, 2000). Stakeholder analysis has been described as a five-step process comprising identifying key sectors and stakeholders, describing stakeholder interests and resources, analyzing, and classifying stakeholder characteristics, reviewing stakeholder dynamics, and developing stakeholder management strategies (Ackermann and Eden, 2011; Bunn et al., 2002).

Although the above description of stakeholder analysis applies to healthcare and its stakeholders, such analysis may vary according to type of hospital, as well as between hospitals and other healthcare organizations (Blair et al., 1990; Reijula et al., 2016). In our networked society, complexity is inherent in many organizational settings (Cooke-Davies et al., 2007; Liu et al., 2011). The number and diversity of stakeholders and their impact on

healthcare organizations have increased, but their level of support has decreased. A similar increase has been seen in pressure on hospital management to identify key stakeholders, understand complex hospital–stakeholder relationships, and develop appropriate strategies to manage them (Blair et al., 1990).

Fottler et al. (1989) categorized typical stakeholders in a large hospital into three groups. Internal stakeholders typically include management, both professional and nonprofessional staff, while interface stakeholders include the medical staff, the hospital board of trustees and taxpayers. External stakeholders fall into three categories according to their relationship to the healthcare organization. The first category includes suppliers, patients, third-party payers, and the financial community. The second (competitors) seeks to attract the focal organization's dependents. The third category (special-interest groups) includes any organization concerned with those aspects of the organization's operations that affect the stakeholder's interest. The major special-interest groups impacting hospitals are government regulatory agencies, private accrediting associations, professional associations, labor unions, the media, the local community, and various political-action groups (Blair et al., 1990).

Stakeholder salience

Stakeholder salience is the central measure in the stakeholder analysis (Tampio et al., 2022). Salience describes the importance of the specific stakeholder, that is, the degree to which they are given priority over competing stakeholders and their claims (Mitchell et al., 1997; Kinnunen et al., 2014). The salience replies to the question to whom (who is a specific stakeholder) and on what (what are the contributions and requirements) managers should pay attention, and how much (what is the priority or importance)? The more significant the stakeholder is, the more management attention they should receive (Aapaoja and Haapasalo 2014). Here, however, it is critical to note that each process or project has only 100% salience to deliver, as a whole and how to divide it between the stakeholders, is the question.

Mitchell et al.'s (1997) framework for stakeholder salience assessment divides it into three attributes: power, legitimacy, and urgency. Power defines the probability that one of the stakeholders within a social relationship factor can enforce their will despite opposition. Hence, stakeholder A can induce stakeholder B to do something that B would not otherwise have done (Bourne and Walker 2006). The basis of power (i.e., the power of stakeholders to influence the process) can be coercive, utilitarian, or normative. Legitimacy is the perception or assumption that the actions of the whole are desirable, proper or appropriate within a socially constructed system of norms, values, beliefs and definitions (Mitchell et al., 1997). Managers are generally more willing to pay attention to stakeholders whose claims are perceived as legitimate (Aaltonen and Kujala 2010). Legitimacy can be considered by individuals, organisations, and society. Urgency is the degree to which stakeholder requirements or claims call for immediate attention. It is based on two main features: time sensitivity and criticality. Time sensitivity is the degree of management delay in handling a requirement or relationship that cannot be accepted by stakeholders. Criticality suggests the importance of stakeholder requirements (Mitchell et al., 1997). Urgency can be understood as the interest of stakeholders or, in practice, that

'louder stakeholders' are attended to first. Some studies have focused mainly on stakeholder identification, analyzing stakeholders' influence, and gathering information about stakeholder operations (Newcombe, 2003).

Another important approach to stakeholder management is to assess those stakeholders who can influence process decisions and their outcomes (Olander and Landin, 2005; Walker et al., 2008; Parent and Deephouse, 2007). Hence, Olander (2007) created an impact/probability matrix in which project stakeholders are classified according to their level of impact and probability. The matrix shows different types of stakeholders in different quadrants (Olander and Landin, 2005): 1) Key players, 2) Keep informed, 3) Keep satisfied and 4) Minimal effort. Aapaoja and Haapasalo (2014) combined the salience evaluation in Mitchell et al.'s (1997) and Olander's (2007) matrix to bring together both perspectives. In their matrix, 'key players' are primary team members (PTM); 'keep informed' are key supporting participants (KSP), representing internal stakeholders for the process, while the external stakeholders include tertiary and extended stakeholders. (Aapaoja and Haapasalo, 2014).

Stakeholder landscape

Stakeholder management, analysis and mapping are good methods, but comprehensive understanding requires more holistic approach (Tampio et al., 2022). For that, Aaltonen and Kujala (2016) proposed the framework to identify characteristics of the stakeholder landscape in four key dimensions: complexity, uncertainty, dynamism, and institutional context. The framework enables management to assess what types of challenges the different dimensions may pose for a project and what types of managerial approaches would be most appropriate towards the stakeholders.

Project complexity has five dimensions; structural, uncertainty, dynamics, pace, and socio-political complexity (Geraldi et al., 2011). Technical, organizational, and environmental complexity are listed by Bosch-Rekveldt et al. (2011). Ramasesh and Browning (2014) explained that project complexity had two key components, which are element and relationship complexity, both of which have various sub-factors. The stakeholder landscape presented by Aaltonen and Kujala (2016) describes process actors more holistically and explains the relationships between stakeholders from fundamental perspectives. The stakeholder landscape can usually be described as a stakeholder map; however, a map is only useful to a certain degree, as it does not answer the questions 'so what' or 'what next'. Aaltonen and Kujala (2016) proposed the framework to identify characteristics of the stakeholder landscape in four key dimensions: complexity, uncertainty, dynamism, and institutional context.

Complexity can be defined as connected elements in a system (Simon, 1991). Aaltonen and Kujala (2016) divided the complexity dimension into the complexity of stakeholder elements and that of stakeholder relationships. The stakeholder complexity element considers stakeholders as elements of a stakeholder system and includes three components, as shown in the figure above (Aaltonen and Kujala, 2016). Once the number of elements increases, so does the overall variety and complexity (Geraldi et al., 2011; Christensen and Greve, 2018), making it difficult to manage stakeholders (Oliver, 1991). Stakeholder relationship complexity is related to relationship networks and includes the sub-elements

shown in the figure above. The number of relationships between stakeholders relates to their interconnection. As the stakeholder network grows it is difficult for a centralized organization to handle pressures from multiple stakeholders with common expectations, who, in such a situation, are likelier to form coalitions (Aaltonen and Kujala, 2016).

Literature presents several definitions for uncertainty. It is related to project risks regarding complexity, to the current and future state of system elements and their interaction (Aaltonen and Kujala, 2016; Geraldi et al., 2011; Ward and Chapman, 2008). Organizational theory defines uncertainty in the same way as a lack of information or agreement about current and future states (Geraldi et al., 2011). According to Sydow (2017), uncertainty means the inability to make an accurate prediction, which refers to the incompleteness of information about alternative courses of action. Expectations among inter-organizational networks can be formed with some degree of reliability, but often they remain genuinely uncertain in the reality of inter-organizational networks, whose activities are based on interaction with others (Sydow, 2017). The discussion in risk management has focused on the level of unpredictability, including fluctuations, anticipated uncertainty, and unexpected uncertainty (Loch et al., 2006). Uncertainty is also relevant in network management, which largely focuses on turning the environmental uncertainty of individual organizations into the uncertainty of the network (Sydow et al., 2013). Former correlate a lot with stakeholder relationship complexity, including the number, variety, patterns, and internal complexity of stakeholders' relationships (Aaltonen and Kujala, 2016).

Dynamism can be defined as the tendency of a system to change and is a basic feature of complex systems. Aaltonen et al. (2015) defined dynamism as changes in stakeholder characteristics and/or position in the project. Olander and Landin (2005) showed how changes in stakeholders' power and interest occur during the lifecycle of a project.

Institutional context refers to the environment in which projects exist, and it makes demands and requirements of, and influences, the project organization and the way projects are implemented; sometimes, projects modify their institutional contexts (Miller and Lessard, 2001). The institutional environment can also be divided into three pillars: regulative, normative, and cultural-cognitive (Scott, 2008).

A synthesis of the stakeholder analysis and landscape literature

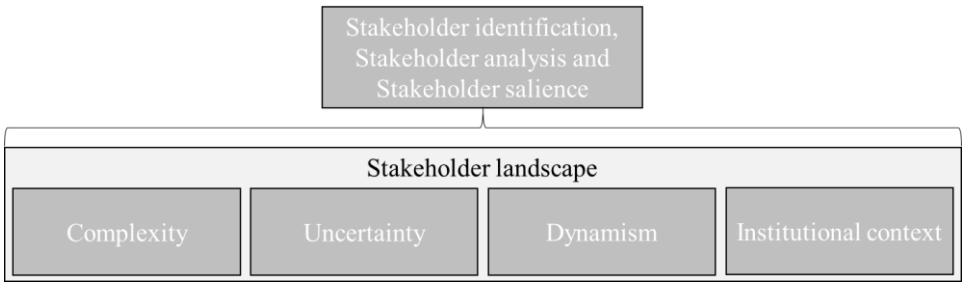
To reduce challenges in the strategic and operative decision-making processes, a stakeholder analysis can be conducted to build up interpretations and a big picture of the stakeholder environment to ensure intentional and careful decision-making (Figure 1). In the strategic level the variety of relationships increases the challenge of managing stakeholders, some of the relationships may be critical, strategic, and long-term and require careful attention and other may not as important in the long run. E.g., in the front-end of the projects, when many far-reaching strategic decisions concerning the objectives, processes and organizing of the project, and decisions on the engagement of stakeholders and the overall strategy of the project need to be made, the assessment of stakeholder landscape supports managers in their decision making (Aaltonen and Kujala, 2016). In the operative process level stakeholder management enables classifying the stakeholders e.g., accord-

ing to salience and the further allocate appropriate managerial action how to involve specific stakeholders early (Tampio and Haapasalo, 2022). A stakeholder analysis can be described as a stepwise process comprising:

- identification of stakeholders,
- analysis and description of stakeholders and their interests and resources,
- prioritization and classification of stakeholders according to their salience.

After individual stakeholders are mapped and classified, the landscape can be depicted to reveal the critical issues for stakeholder management for the process in question. Understanding the complexity, uncertainty, dynamism, and institutional context of a specific process entity, that is, the stakeholder landscape, offers management a platform for decision-making – for the questions 'so what' or 'what next'.

Figure 1: Synthesis of literature review and analysis framework for our case study process



RESEARCH METHODOLOGY

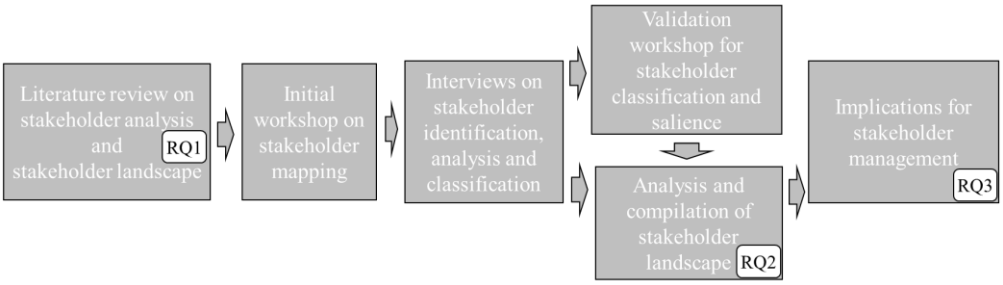
Given the scarcity of previous research giving more detailed analysis, characterization and classifications of project stakeholder and landscaping, especially regarding healthcare processes, our research was conducted with a qualitative approach (Bryman and Bell, 2011). In the first phase of the study (Figure 2), a literature review was performed to establish the foundation for the empirical analysis. Based on the literature synthesis, we created an outline for the study of the stakeholder analysis, saliences, and landscape (section 2.4). We selected qualitative approach because of its high practical relevance and the possibility of gaining in-depth knowledge about the research phenomenon (Aaltonen et al., 2008; 2015; Tampio et al., 2022). The main aim in our approach is to apply stakeholder analysis and stakeholder landscape model to regional healthcare process for two main reasons. At first, to describe and analyze challenges of stakeholder analysis and landscape and second, what implications stakeholder analysis and landscape have for the healthcare process management. This aim also includes an evaluation weather stakeholder analysis and landscape can utilized as a method for healthcare management.

Our unit of analysis is the regional healthcare process. The rationale for selecting Northern Ostrobothnia Hospital District (NOHD) for our study was primarily that it is a large

hospital construction project and therefore undergoing hospital-level development of strategic and operative processes. Social and healthcare reform (SHCR) was initiated in Finland since 2003 and in 2019 the government decided to launch the SHCR, which will act in 2023. The structural reform is the transfer of the social and health care service obligation from the municipalities and cities to a larger actor to the province level. Parallel to former NOHD launched healthcare process renewal and hospital construction projects (divided on three sub projects worth over 900 M€ in total) in 2018 aiming to end in 2026. Our research has been implemented parallel to former in year 2021 offering platform and demand for our analysis results. Thus, we had a unique process, underpinned by an interesting project, which offered a good empirical context for research. Good, open access to the data and informants supported the selection of this process for our study.

At first a workshop for healthcare professionals was organized. The aim was to create a basic understanding of the NOHD healthcare process and stakeholders. Eleven participants from leading positions in the university hospital operating in NOHD took part. Participants were divided on three separate groups and their task was to map and list stakeholders according to already Fottler et al., (1989) classification (internal, interface and external) stakeholders. Outputs of the workshop were a tentative stakeholder map of the regional healthcare process and names of informants to take part in more in-depth interviews. Informants were selected based on their expertise in the administration of NOHD, expertise in healthcare development and in-depth knowledge of medicine at a generic level. The maps had tentative PTMs at the center of the onion, KSPs in the second layer, 'tertiary stakeholders' in the third layer and, finally, 'extended stakeholders' in the fourth layer. Although holding the workshop was a stimulating process, it also opened our eyes to the fundamental complexity of the stakeholder map and gave us the insight that we had to perform more in-depth interviews with main stakeholders to acquire a more detailed understanding. Thus, one of the findings from the workshop was the list of experts to be interviewed more thoroughly in the next step.

Figure 2: Our research methodology



The second step of our empirical study was to interview the selected main stakeholders. For the interviews, 15 key staff from different parts of the NOHD (Table 1) were selected based on their knowledge and extensive experience of the regional healthcare process. The interview questions can be found in Appendix 1 in detail, mainly related on identifying both national and regional level stakeholders, their relationships and importance to each other, their goals, interests, and requirements, and what impact the identified stakeholders could have on the healthcare process in general.

Table 1: Informants in the interviews as the second step of the study

Organization	Position/role of the informant
NOHD	Medical Doctor/Head of Division
NOHD	Medical Doctor/ Head of Division
NOHD (University of Oulu)	Medical Doctor/Head of Division (Adjunct Professor)
NOHD	Medical Doctor
NOHD	Medical Doctor/Head of Division
NOHD	Medical Doctor/ Head of Division
NOHD	Communication Manager
University of Oulu (NOHD)	Professor (Medical Doctor)
City of Oulu (University of Oulu)	Chairman of the Board of Trustees (Professor)
NOHD	Chairman of the Council
NOHD	Development Manager
NOHD	Medical Director (Adjunct Professor)
NOHD	Medical Doctor/Head of Division
NOHD	Chief Executive Director
NOHD	Medical Doctor/Assistant chief physician

After the interview, we undertook an initial content analysis (comprising data collection, coding, analysis of content and interpretation of the results), following Duriau et al. (2007). After the analysis, we performed a validation workshop for stakeholder mapping, classification, and salience descriptions. In the validation, the data and findings were first presented, after which we had an open discussion to validate our analysis and reveal fine-grained elements within the data. Five experienced healthcare professionals from the group of interviewed experts participated in this validation (Table 2).

Table 2: Informants in the validation workshop as the study

Organization	Position/role of the informant
City of Oulu (University of Oulu)	Chairman of the Board of Trustees (Professor)
NOHD	Chairman of the Council
NOHD	Development Manager
NOHD (University of Oulu)	Medical Director (Adjunct Professor)
NOHD	Chief Executive Director

As a final contribution, we first present our unit of analysis – the regional healthcare process in NOHD – to describe the official and formal organizational structure. Most of this information was acquired from the public information sources of these organizations. The second part of the contribution comprises stakeholder classification: internal – interface – external, following Fottler et al. (1989) and stakeholder salience, following the attributes proposed by Mitchell et al. (1997): legitimacy – power – urgency, as described by the informants. We have defined the attributes and salience based on how informants themselves have experienced their 'stake' in the healthcare process. That is, power, legitimacy and urgency have been analyzed from the perceptions of the stakeholders. Third, we have analyzed the stakeholder landscape based on the framework developed by Aaltonen and Kujala (2016), hence from the perspectives of complexity, uncertainty, dynamism, and institutional context. Finally, we discuss the implications of landscape elements for stakeholder management in the case of NOHD.

CHALLENGES AND THE STAKEHOLDER LANDSCAPE IN THE HEALTHCARE PROCESS

Regional healthcare process – a case study of the Hospital District of Northern Ostrobothnia

The most demanding healthcare services in Finland are provided by the university hospitals. There are also several other municipal and/or privately-owned hospitals and health centers in each hospital district area, one of which is NOHD. Healthcare services are also provided by private companies, especially occupational healthcare. NOHD (Figure 3 and 4) is the northernmost and geographically largest of the five Finnish university hospital districts. Approximately 740,000 inhabitants live in the catchment area of Oulu University Hospital (OYS-ERVA).

The OYS-ERVA comprises NOHD (including 29 member municipalities), Western Ostrobothnia (6), Central Ostrobothnia (10) and Lapland (15), as well as the Kainuu Association of Municipalities for Social and Healthcare (8) (Figures 3 and 4). The OYS-ERVA region has the largest number of social and healthcare providers in Finland (42 separate providers): Kainuu 2, Central Ostrobothnia 2, Lapland 19 and Northern Ostrobothnia 19. Of the region's 68 municipalities, 29 organize complete social and healthcare services inhouse, and 4 municipalities organize them using a responsibility model of specialized healthcare services, 31 municipalities organize complete social and healthcare services, and four municipalities organize only healthcare services according to the municipal association model. The Northern Finland region and its municipalities differ in terms of population and structure, morbidity, social structures, in their service structure and infrastructure. Such differences affect the use of services by the inhabitants and the costs involved.

Figure 3: The formal organizational structure for our regional case healthcare process, NOHD

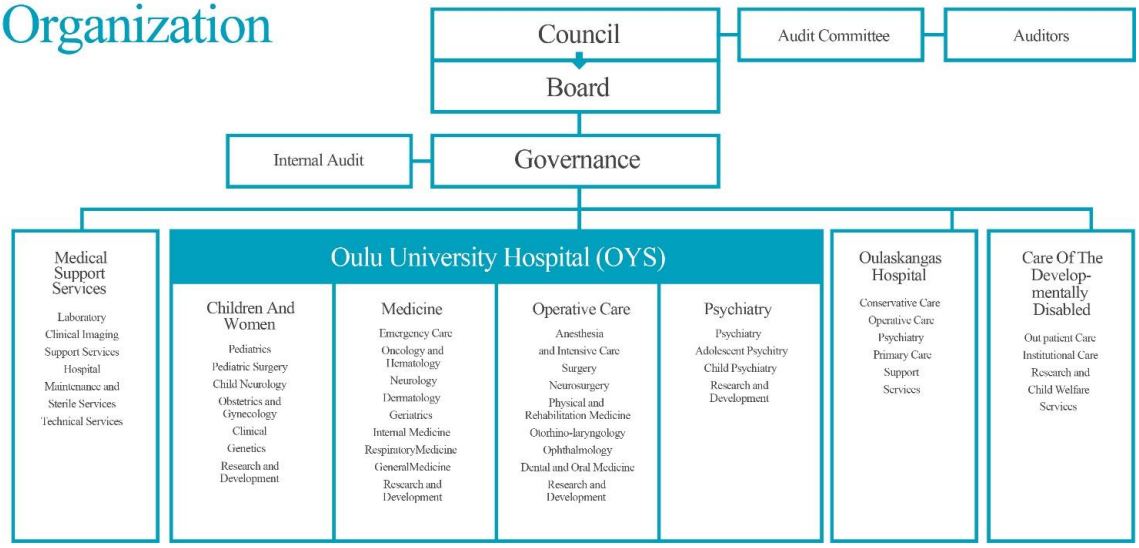


Figure 4: The OYS-ERVA area for the regional healthcare process (NOHD).

In the formal organization, NOHD is headed by the director of the district. The district director and the administrative directors under his immediate authority are responsible for the preparation and implementation of matters to be handled by the board of trustees. The administrative directors are responsible for co-operation with member municipalities and special areas of responsibility, developing appropriate division of labor, and co-operation in primary healthcare and social services, liaising with national and local authorities, and national and international co-operation in the social and healthcare sector.

The administrative directors are required to create conditions (resources: medical personnel, facilities, equipment, and all the necessary support) for the operational and medical personnel, and to support them in the performance of their tasks and duties, to ensure the functionality of the cooperation between different divisions (competence centers), and to develop a model of managing and organizing the services and processes, use of labor, and cooperation.

The healthcare process is strongly regulated by legislation, (e.g., the Data Protection Act General Data Protection Regulation - GDPR, the Act on the Openness of Government Activities, the Act on the Protection of Privacy in Working Life, the Archive Act, the Information Society Code, and the Act on Electronic Services and Communication in the Public Sector), which limits and restricts what can and cannot be shared through the information flow. However, legislation does not accurately define how something must be done, more like what needs to be done. The division of healthcare between the private and public levels (city/state/specialized care) also creates complexity. Different

healthcare units (private/city/state) also have different service levels, and some patients need to be treated in several units during the same care episode. The development of diagnostics and treatments has also greatly increased different services.

In the NOHD, the actual healthcare and treatments have been organized into separate profit areas (Figure 3) and further different responsibility areas based on medical treatment classifications. Under these responsibility areas, the actual patient work takes place, where the doctors, nurses, and support personnel operate. These organizational structures create complex environment in organizing the regional healthcare process.

Stakeholder analysis of NOHD

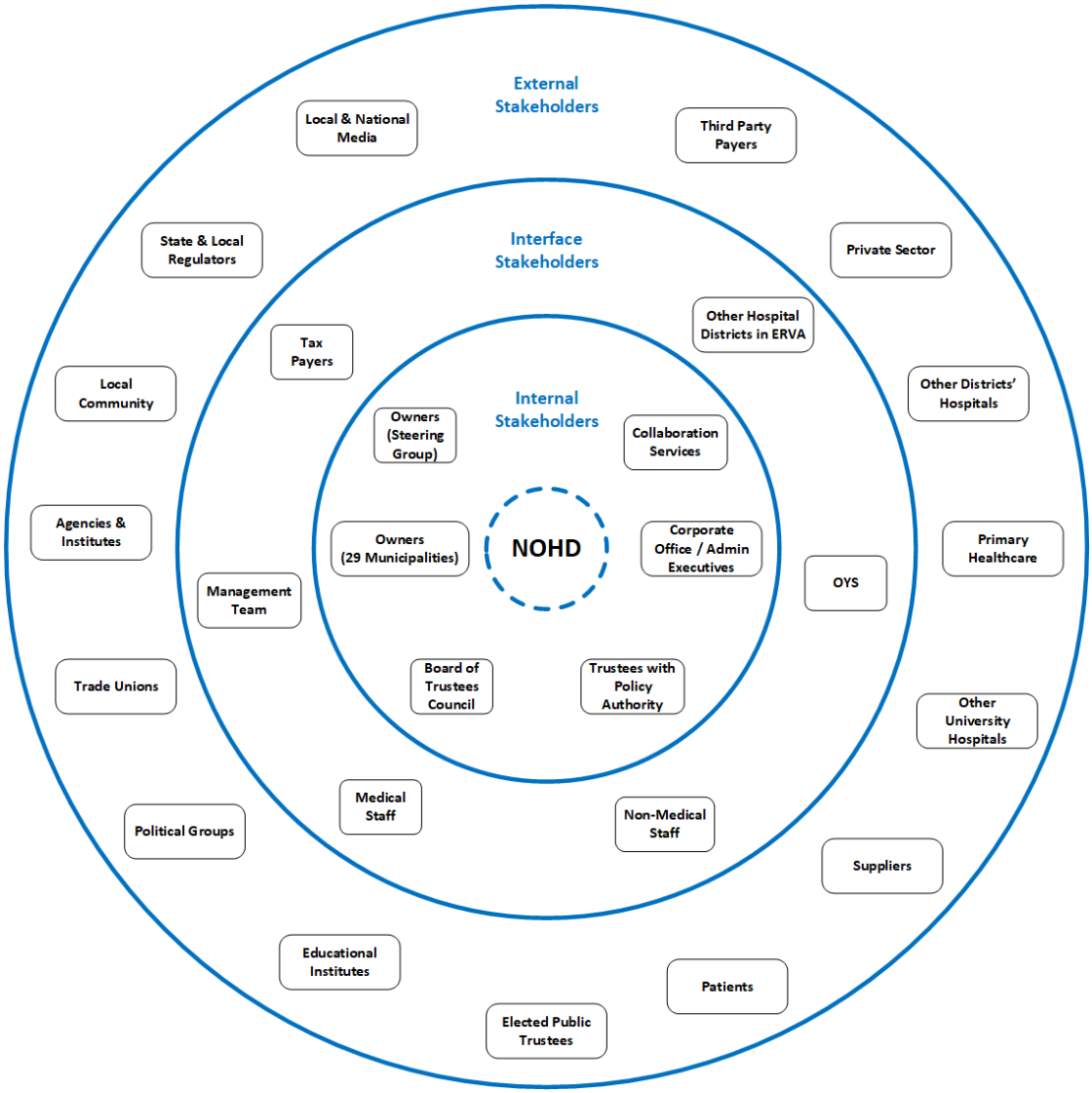
The operational environment of the healthcare process in the NOHD is characterized by a broad and various range of separate stakeholders (organizations, groups, or individuals). Multifunctional and multidisciplinary actors at both national and local levels, who have potential influence – and an interest in influencing – and are obliged to work together in various ways to fulfil their duties and responsibilities for the taxpayers and provide cure- and care-related services for patients. Several tens of stakeholders have been identified, with some difficulty. Most of the interviewees identified legislators, supervisory authorities, and other university hospitals as the most important stakeholders at national level. Other hospitals in the OYS-ERVA region, owner municipalities – decision-making (council and government), educational institutions (university and university of applied sciences) and local authorities – were identified as important stakeholders at local level.

Our analysis suggests that there are tens of distinct stakeholders and organizations with interests, expectations, and some influence in their area. Understanding different actors as stakeholders involves looking at the key characteristics of the actors (e.g., regulators, authorities, owners, politics and political decision-making, collaborating organizations, third sector, private service providers and suppliers, labor unions and medical staff). Based on these characteristics, stakeholders were classified into the categories of internal, interface and external.

Stakeholder classification (internal – interface – external, as shown in Figure 5) (based on Fottler et al. (1989)) and stakeholder salience (legitimacy – power – urgency) (Mitchell et al., 1997) attributes were not recognized by the informants. We define attributes and salience based on how informants have experienced their ‘stake’ in the healthcare process. Specific descriptions of the stakeholders can be found in Appendix 2.

Internal stakeholders are those that operate almost entirely in the generally accepted interfaces of the organization, including both professional and nonprofessional staff, owners, board of trustees (NOHD council and board of executives), administrative directors, managers of operations (physicians’ and nurses’ managers) and key collaboration entities. Management attempts to manage these internal stakeholders by providing sufficient inducements to ensure their continued contribution.

Figure 5: NOHD healthcare process stakeholder identification, classification, and mapping



Interface stakeholders are those who operate both internally and externally to the organization, that is, those who are at the interface between the organization and its environment. The major stakeholders tend to be among the most powerful stakeholders in healthcare organizations but are easily misunderstood because they are thought of as 'us' or 'them' when they are both – and neither. From an operational viewpoint, physicians are the most powerful stakeholders in the hospitals. This power is based on the physician's ability to admit patients, control the patient care process, control the use of resources, and provide the necessary services. Hospital physicians, in most circumstances, have the highest potential for both threat and cooperation. This potential is primarily realized through the power of medical staff to refer patients. Physicians have the power to order treatment for their patients and have the power to send patients elsewhere. The physician's desire to maximize the effectiveness of treatment for each of their patients was viewed as conflicting with a broader perspective that emphasized both the organizational requirements

of patients and the need for practice patterns that enhance institutional viability and profitability.

External stakeholders fall into three categories as regards their relationship with the healthcare organization. The first category includes suppliers, patients, and third-party payers and the financial community. The second category consist of competitors (other hospitals), direct competitors for patients or skilled staff. The third category (special-interest groups) includes any organization concerned with those aspects of the organization's operations that affect the stakeholder's interest.

Re Stakeholder Landscape in NOHD

We analyzed the stakeholder landscape using the framework developed by Aaltonen and Kujala (2016). Stakeholder landscaping provides guidance to start evaluating the managerial implications of different types of landscapes for the management of both stakeholders and projects, which are typically complex, containing multifunctional and multidisciplinary collaboration (Table 3). Not all stakeholders have an equal impact on the healthcare process, even though some stakeholders are depicted as having the same size and shape. The main differences concern the requirements, goals and degree of influence which come from the position to which the stakeholders belong: regulator –supervisor (authorities); owner (municipalities – council – board of trustees); organizer/financing – operator/service provider; personnel (admin – physicians – nurses); and patients (taxpayers).

Table 3: Findings on the NOHD stakeholder landscape

Complexity	**Uncertainty**	**Dynamism**	**Institutional context**
Stakeholder element complexity – High number of stakeholders in national and regional healthcare (>30). – Multifunctional and multidisciplinary collaboration between the stakeholders. – Stakeholders in different levels and positions regarding legitimacy *Stakeholder relationship complexity* – Same persons belong to different stakeholders causing challenges in interrelationships causing even individual conflicts of interest. – Inequality among different stakeholders.	*Lack of information related to stakeholders and their relationships* – No systematic approach to stakeholder management. *Analyzability of the stakeholder environment* – Challenges to identify and acquire information on goals and requirements from stakeholders. *Ambiguous information regarding stakeholders* – Differences and contradictions in goals of stakeholders. – Political context of decision-making may create unexpected transformations.	*Changes in stakeholder characteristics* – Renewals (e.g., SHCR and legislation) create new stakeholders. *Changes in the positions and relationships of stakeholders* – Role and importance of stakeholders vary in different phases of the project. – Changes in healthcare process results changes in stakeholders.	*Local networking of stakeholders* – Stakeholders have significant, direct, and personal relationships with local actors. *Multiplicity of institutional environments* – There might be coalitions among groups of trustees and medical staff. *The complexity of the stakeholder interpretation process* – Institutions have fundamentally different and contradictory goals, in addition to different institutional position. *The nature of legitimate stakeholder influence strategies* – Public, private and third sector stakeholders, including media without any legitimated position.

Complexity: Based on the interviews, the range of stakeholder entities operating in the NOHD operating environment is vast; it also varies. There are tens of stakeholders at the national and regional level. Stakeholders are different in size and position in relation to each other. Legislators and authorities legislate and have power and legitimacy over other

stakeholders. Municipalities, under their organizational responsibility, provide services following law and regulations to their residents as required by law (legitimacy) and simultaneously ensure that the municipal finances remain in good condition and residents receive equal services regardless of where they live. The authorities monitor compliance with laws and regulations, along with official instructions issued.

In the healthcare process, there are many mutual interfaces between stakeholder entities, whether groups or individuals. There might also be conflicts of interest when the same person belongs to different stakeholder entities. For example, the same person may simultaneously belong to Parliament and municipal councils, decision-making bodies of hospital district owner municipalities, and decision-making bodies of the hospital district association. Difficulties emerge when the goals and interests are not identical and if all stakeholders are not kept equal.

Overall, there is a contradiction between goals and requirements in the service-producing units (hospitals and health centers) and at clinic level (doctor–patient in the healthcare process. Hospitals, health centers and other service organizations must perform their roles and responsibilities with existing resources, which inevitably means making 'value choices' about the care to be provided. The same applies to a physician when they must consider and balance medicine, ethics and economic boundary conditions when prescribing examinations and treatment for a patient. The discrepancy regarding goals and needs at clinic level is well illustrated by the fact that, to provide the best possible care to a patient, nursing staff want the best possible care facilities and equipment, but there is a lack of money. The juxtaposition contains the best and most effective care to be provided to the patient based on the fundamental rights of the citizen and the economic boundary conditions set for the hospital and the doctors working there (legitimacy vs. power).

This balance will not change in the future as citizens' demands and expectations for healthcare increase, and the number of older people and incidence of morbidity increase, while medicine, nursing and health technologies develop at an accelerating pace and offer new and more effective medicines and therapies and technologies. The dilemma is the sustainability gap, as the number of working taxpayers decreases relative to the rest of the population and the costs of healthcare only increase.

Uncertainty: There may be starkly conflicting perceptions of healthcare requirements among and within stakeholders. It is difficult to obtain information on the objectives and requirements of different stakeholders, and information is not typically available or concrete. Stakeholders from whom information was publicly available indicated that there were differences and even inconsistencies in their parallel objectives. The SHCR has had and will have extensive uncertainty about the healthcare process (legislation). Moreover, the NOHD has its own development programmed (investment implementation and construction of a new hospital), and SHCR has caused a great deal of uncertainty around decision-making, especially from a financial perspective. The lack of a systematic approach to stakeholder management has itself generated uncertainty in the way stakeholders see the entity.

The ongoing SHCR also causes additional tension between different stakeholders and even among stakeholders because of political interests. The SHCR has been, and will be,

a long process, which is why the entire Finnish healthcare system has been undergoing changes for more than a decade. This uncertainty has been reflected in inter-stakeholder activities as organizations have reformed: new partners and new stakeholders have emerged and are not yet identifiable, and no information is yet available on the goals or requirements of these stakeholders for the organization of healthcare. Changes have also been identified in existing stakeholder relations and the influence of individual stakeholders (e.g., the private sector and third sector).

Dynamism: The changes in legislation have changed and will continue to significantly change the healthcare operating environment and stakeholder landscape. New actors will enter the healthcare process and new stakeholders will emerge, while the salience of stakeholders will change. The entrance of new actors will also affect stakeholder relations. In NOHD, the construction of the new hospital and introduction of productivity measures to meet the project's objectives seem to be a significant change in NOHD. The new hospital will be introduced with new operating processes, following the new organizational model and the hospital's operating environment: organizational responsibilities will be updated, financial boundaries will tighten, customer expectations and requirements for healthcare will increase, and competition for skilled labor will intensify. At the same time, there is a continuous and accelerating development in the fields of medicine, nursing, and health technology. The same trend is related to the entire healthcare area, regardless of whether something is being built or operating in its current state.

Institutional context: The Finnish healthcare system and its operating environment are based on laws and regulations, under which each stakeholder has its own clear tasks and responsibilities. In Parliament, legislators elected by the people legislate; municipalities are responsible for organizing health services and primary healthcare; hospital districts are responsible for organizing specialized medical care; and hospitals are responsible for providing such care and have their own organizations, with responsibilities and obligations.

There are several actors and operational levels in the healthcare sector who work together in different sectors, multidisciplinary and multi professionally. Stakeholders include actors from several sectors of society (public, private and third sectors) and primary and specialized medical services (hospital districts, hospitals, health centers), which are the responsibility of the municipalities, and other areas of administration work together. Multi-professionalism is reflected in the close cooperation of professionals (non-medical staff – medical staff – other specialists and researchers) across organizational boundaries.

Stakeholders in the healthcare sector are extensively networked, and they may have significant, direct, and personal relationships at both national and local level, for example with Members of Congress, ministers, local authorities, decision-makers, and senior executive officials. This could cause some conflict when there are many politicians, who might belong to several other stakeholder groups, which might have different and contradictory goals and different kinds of pictures of the situation. It is particularly challenging to decide on the use of municipal money, and the juxtaposition is to organize health services that are fundamental human rights and produce impressive health benefits. One possibility is that groups form coalitions with each other so that they can acquire more power to advance their cause.

Discussion of the impacts of landscape elements on stakeholder management

In our case study, it became evident that the Finnish national healthcare system is currently operating in a complex, turbulent and strongly institutional environment (Table 4). It is full of uncertainty and dynamism, with a multiplicity of stakeholders, with their own interests, perspectives, and priorities, in the background (see Hudelson et al., 2008; Muntlin et al., 2006). A variety of national and local stakeholders, and their goals and requirements, seem to differ from each other in background as well as ability and power to influence the healthcare process and its requirements. Demands from the government viewpoint and expectations from the patients'/taxpayers' viewpoint differ and may change rapidly and substantially. The public, patients and specific-interest groups are more sophisticated and have higher expectations of healthcare services. This rapidly changing healthcare landscape is not just a national issue; indeed, the need for more efficient healthcare processes seems to be a global phenomenon (see Hussain et al. 2015).

Stakeholder landscaping (Aaltonen and Kujala, 2016) is thorough methods describing the overall nature of the healthcare process. To manage the healthcare process successfully, it is evident that describing the landscape enables more efficient management. The landscape framework provides insights and additional information to understand stakeholder contexts in the general stakeholder research stream (Fassin, 2008), in which the concept of stakeholder environment has been largely ignored. In particular, the dimensions of uncertainty, dynamism and institutional context in the framework have been largely underestimated in previous project stakeholder management studies, while much emphasis has been placed on stakeholder characteristics and objectives (see Achterkamp and Vos, 2008; Littau et al., 2010; Mok et al., 2014; Yang et al., 2011).

Our result does not, by any means, point fingers at poor management; rather, it attempts to offer tools to organize the process more clearly. This method should be used when planning the SHCR – how to identify, analyze and balance different stakeholder needs for the good (efficiency and effectiveness) of the entire healthcare process. Organizations should reconsider their strategies and operations as they face increasing and potentially conflicting demands and needs from their stakeholders, whether individuals or groups. The idea (Blair et al., 1990) of analyzing internal, interface and external stakeholders and Mitchell et al.'s (1997) notion of salience (legitimacy – power – urgency) for the healthcare process are challenging but enable more sophisticated tools to be found to organize the process. The developed framework (Aaltonen and Kujala, 2016) contributes to the growing research flow that defines, conceptualizes, synthesizes, and rationalizes complexity and its implications for management (see Bosch-Rekveldt et al., 2011; Geraldi and Adlbrecht, 2007; Geraldi et al., 2011; Maylor et al., 2008; Vidal and Marle, 2008). Although the framework is in line with many previous observations and studies on the complexity of the project, its distinctive feature is that it focuses strictly on the characteristics of the project's stakeholder landscape.

Table 4: Impacts of analyzing landscape elements on healthcare process stakeholder management

Landscape elements	Impacts into stakeholder management

Complexity *Analyze stakeholder element complexity.* *Analyze stakeholder relationship complexity.*	– If the degree of stakeholder complexity increases, it becomes more challenging to balance between stakeholders' claims, which may increase the probability of conflicts. – Identify (analyze the saliences) the most powerful and contractually important stakeholders and those with influence to achieve or prevent objectives. – Involve supportive stakeholders, monitor marginal stakeholders, defend against nonsupurative stakeholders, and collaborate with mixed-blessing stakeholders. – Proactively develop the relationships between and among the stakeholders rather than concentrate only on effectively dealing with a particular stakeholder on a specific issue—satisfy key stakeholders by offering appropriate inducements in exchange for essential contributions.
Uncertainty *Acquire information related to stakeholders, their requirements and expectations and their relationships.* *Analyze the stakeholder environment and stakeholder salience.*	– Identify potential challenges and problems that could prevent the achievement of common goals. – Identify the risks and opportunities and develop a plan of action, risks and opportunities and innovation management. – If the time frame of a stakeholder analysis is too long or study results are not applied in a relatively short time, especially in complex and potentially unstable settings, the relevance of the analysis for informing stakeholders on how to manage the future decreases rapidly. – Identify the degree of legitimacy, power, and urgency with respect to various stakeholders to avoid lack of influence, collaboration and misunderstanding of each stakeholder (individual or group) responsibilities during the process, where the degree of salience may vary. – The dynamic resilience of the healthcare process needs to be developed.
Dynamism *Analyze the stakeholder characteristics and current position and sight of their possible changes in the future.* *Analyze impacts due to possible changes in relationships between stakeholders.* *Proactive collaboration with and among the stakeholders.*	– If the degree of dynamism increases—with changes in their attributes and position—it may increase the probability of forming coalitions with other stakeholders. – To be prepared on SHCR and entailing major changes in organizing and providing care services in a more efficient and effective way, the working environment—equipment, ICT, facilities, and the personnel—medical staff, organization structure, needs to be prepared. Not to forget, to identify the key stakeholders and their expectations and objectives related to the SHCR, and to prepare a strategic plan to manage this all. – Proactively develop the relationships between and among the stakeholders along the way, e.g., collaboration meetings, and surveys and using different kinds of communication channels to assure that the objectives and expectations of separate stakeholders are still valid, and they are going to be achieved. – Identify interdependencies between different stakeholders and ensure consistency of objectives and needs. – Communicate goals clearly, maintain transparency, and actively report on results to all stakeholders.
Institutional context *Analyze networking of stakeholders and stakeholders' interpretation process.* *Analyze the nature of legitimate stakeholder's influence strategies.*	– The increased complexity of the institutional context may be associated with increased levels of stakeholder landscape uncertainty. – If the level of stakeholders' local embeddedness increases, it becomes more challenging to foresee and anticipate their behaviors. – Identify the main institutional stakeholders and their objectives and requirements for co-operation—contractual and regulatory. – Factors that must be considered in assessing and interacting with stakeholders include both the potential for one stakeholder to form a coalition with another stakeholder and the ability of the representative to unify the members of the stakeholder group

The presence of different stakeholders could also be understood as offering multifunctionality. Multi-professional collaboration is a process of interaction in which two or more professionals in the same field work together. Diversity, in turn, refers to cross-sectoral or cross-departmental co-operation within the same sector, for example between different branches of municipality and service providers (see Lockhard and Wood, 2000; D'Amour et al., 2005; Moran et al., 2007).Where stakeholder representatives can be encouraged to state the positions and declare the interests of their organizations – and share these with

other important stakeholders – a more coherent dialogue between interest groups and a more transparent process of policy development may be facilitated. The cross-sectional nature of analysis, the provisional nature of the information obtained, and the unpredictability of future events are inherent limitations of stakeholder analysis; recognizing these limitations increases its utility for understanding and influencing the policies and politics of health (Brugha and Varsasovsky, 2000). By considering which stakeholders are involved in an implemented strategy, organizations are better prepared and show more flexibility to meet their needs (see Werther and Chandler, 2011; Alexander and Miesing, 2004).

As a managerial implication for the process, prior research indicates that project and program managers should start evaluating what kind of implications different types of landscapes have for managing both stakeholders and projects before they start a thorough stakeholder analysis, which is a time-consuming activity. Therefore, the process and project managers can easily find themselves in a dilemma between spending time on a thorough analysis of stakeholders and the need to execute project and/or set an existing strategy in motion. In the early stages of the processes/projects/programs, when a clear project definition (Miller and Lessard, 2000), with the related objectives, processes, execution plans and resources (time, budget, and organization) need to be defined, the framework developed for stakeholder landscaping could be useful. It should be borne in mind that stakeholders are interlinked (Parmar et al., 2010), meaning that the involvement of certain stakeholders and the exclusion of others can affect the relationship between them, which may later lead to changes in the whole stakeholder landscape (Achterkamp et al., 2013).

CONCLUSIONS

This study aims not to evaluate the managerial level of our case study, but to demonstrate the improvement potential through stakeholder management methods. This study explores the regional healthcare process through stakeholder analysis and landscaping. This need has emerged from the complexity of decision-making and the fact that numerous stakeholders set targets for specific parts of the process inside the NOHD. A practical stakeholder map and analysis combined with a stakeholder landscape present a great challenge in healthcare management. This study aims not to evaluate the managerial level of our case study, but to demonstrate the improvement potential through stakeholder management methods. In our study we first review the literature for analysis framework for our case healthcare process. Then mainly through interviews analyze stakeholders and related challenges and describe the stakeholder landscape and end up on implications for stakeholder management for the healthcare process. The overall contribution describes the applicability and benefits of stakeholder analysis and landscape to healthcare process management.

Although stakeholder management has received growing interest in project management research, it is still used relatively modestly in healthcare processes and projects. Based on our literature review, we have described steps (identification, analysis, mapping/classification, and salience definition) for stakeholder management and content for describe the entire stakeholder landscape. Complexity (both number and relationship), uncertainty,

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dynamism and institutional context are the areas of landscape which allow the relationships of stakeholders to be described from fundamental perspectives. An important practical benefit of a stakeholder landscape description is that it shows the complexity and challenges in real processes and the real salience of stakeholders, which typically differ from the formal understanding of the governance model.

When analyzing the NOHD regional healthcare process, it became evident that all the landscape elements can be difficult to organize and manage. Therefore, it is also surprising that there is little evidence that these managerial tools (stakeholder analysis and landscaping) are applied in practice. Even the actors in the process were not aware of who the stakeholders were and what roles they played. This creates an unfair position for the managers to make successful decisions (both at the strategic and operative levels) in the long run. Multiplicity can be found, and is very high, in every element of the landscape (Table 4).

We have also listed the implications of the landscape (Table 5), especially for decision-making. One of the biggest potentials of utilizing the landscape and its elements is ongoing, and emerging SHCR incorporating the dynamism even stronger into the healthcare process. It can be seen as an important opportunity to utilize landscape as a tool for improving the healthcare process. Our analysis covered one hospital district, but the landscape can be seen as similar in all Finnish hospital districts. We also considered that the analysis could be extended anywhere, providing a holistic picture. However, when a healthcare system changes, so does the content of the analysis. Our main aim was to prove the applicability of stakeholder analysis and landscaping. We will continue our studies by applying the analysis at the level of healthcare projects to clarify the complexity, multifunctionality and multidisciplinary to improve project success in the future. Additional, less studied, phenomena for further studies emerges from the complexity of stakeholder environment is the "opportunistic behavior" among process stakeholders resulting from the dynamism in process, incomplete relationship's structure, and unaligned stakeholder goals.

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APPENDIX 1: INTERVIEW QUESTIONS FOR THE HEALTHCARE PROCESS STAKEHOLDER LANDSCAPE, RELATIONSHIPS AND OBJECTIVES

1. What is your organization and what services does it offer?
2. What is your organization’s role and responsibility in the healthcare process?
3. What is your role in the organization and how long have you been working here?
4. Which other stakeholders are involved in the regional healthcare process, and can you briefly tell me about their roles?
5. Can you easily recognize all the stakeholders in the healthcare process?
6. Have new stakeholders entered the project / are significant new stakeholders coming? What are the associated challenges?
7. Are there significant external stakeholders in the project that need to be / should have been considered?
8. How often do new stakeholders emerge in the healthcare process?

9. Do stakeholders have significant relationships with other actors that are contextually relevant? And what are the associated challenges?
10. Is the stakeholder landscape easy to analyze (get information about)?
11. What kind of interrelationships do stakeholders have? And what are the associated challenges?
12. Have there been / are there any significant changes in stakeholder relations? And what are the associated challenges?
13. How static / dynamic are the stakeholders and their relationships in the healthcare process?
14. Is it estimated that the importance and positions of stakeholders in the project (OYS 2030) will remain relatively the same, or will there be any changes?
15. Are there clear problems between stakeholders in the project (OYS 2030)? Are stakeholders seen as equal?
16. Are there many different institutional operating environments (logics) in the project that are contradictory, and what kind of effects are they seen to have?
17. Do the project manager and project team have a systematic approach to stakeholder leadership?
18. What are the most critical stages in the healthcare process?
19. How would you describe your organization's commitment to the healthcare process?
20. How have you achieved it?
21. What are the accepted and popular means of engaging stakeholders in this environment and how have they been used?
22. How do you adjust your own working routines to cater for other stakeholders' requests? Can you give some examples?
23. What are the objectives of the stakeholders and what are the differences and contradictions in the objectives of the key stakeholders?
24. Is information on key stakeholders and their demands readily available? And what are the associated challenges?
25. Is there conflicting information about stakeholders and their goals, or is the information consistent?
26. Do stakeholders have the same understanding of the operating environment and its requirements?
27. Would you like to add anything that you think is important to this research and has not been covered?
28. What are the most important stakeholders in terms of the healthcare process?

APPENDIX 2: INTERNAL, INTERFACE AND EXTERNAL STAKEHOLDERS OF NOHD AND THEIR ATTRIBUTES OF SALIENCE (P=POWER, L=LEGITIMACY, U=URGENCY)

Internal stakeholder and salience attributes	*Source of impact/salience*	*Source of influence*	*Probability to impact*
Owners (P, L, U) – 29 municipalities NOHD council, NOHD board of trustees (P, L) – Trustees with policy authorities	Municipalities have a legal obligation to organise healthcare services but can decide how to organise them in practice. Municipalities can either provide primary and specialised healthcare services alone, purchase them from the private sector, or collaborate with other municipal authorities. The NOHD council has the highest power in decision-making.	– Exert political influence – Financing containment – Patient access – Possess formal authority and control (veto right) – The highest decision-maker – Control funding	5
NOHD district executives/ Senior management (P, L, U) – Administrative directors – Physician managers/medical director – Nonclinical managers (i.e., HR, Financing)	Senior management has the legitimate responsibility of planning, organising, leading, and controlling operations in the NOHD, the strategy and approved action plan, budget, planning and implementing the issues for the board of trustees. Senior management discusses with internal and interface stakeholders.	– Control efficiency and productivity – Control operations and use of resources – Influence and control budget – Provide inducements	4
Collaboration services (P, L, U) – University and University of Applied Science (UAS)	Collaboration plays major role in both the district and OYS operations. There is direct research and development collaboration with the University of Oulu and the Oulu UAS.	– Provide and control support services – Allocate resources in the field of research and development	3

Interface stakeholder and salience attributes	*Source of impact/salience*	*Source of influence*	*Probability to impact*
Management teams (P, L) – Team of university hospital's managers – Teams of profit unit managers (4 teams) – Teams of other operational unit managers (3)	Management is responsible for the hospital's operation and finances. They run planning and daily operations, defined in the legislation (strategy, approved action plan, budget, and operations). Management is responsible for patient safety and responsibility for patients to access to care in time. Management organises the interface between non-medical and medical staff with incentives to gain contributions from these stakeholders.	– Manage and control the use of resources (medical staff, facilities, and equipment) – Manage the recruitment process – Law and order	4
Non-medical and medical staff (P, U) – Staff only at the hospital – Staff at other hospitals/ ERVA area health centres – Local representatives of unions	Accepting patients, controlling care processes and resources (equipment, facilities, medical staff), provide key services. Physicians have the power to decide patients' care and direct patients for further care. Non-medical staff delivers the required support services and create the fluent operating environment for the care process. Unions typically have a extensive power and ability to influence any emerging issue.	– Control patient admission process (in and out of the hospital) – Control use of resources – Provide necessary support services – Make collective agreements, both nationally and locally	4
Parent companies (P, L, U) – Other hospital districts in the ERVA area and their hospitals, healthcare service centres and organisations	A service-sharing agreement in the ERVA area defines the healthcare services and work division. Parent organisations may confront consideration a competitor in some cases. Parent organisations may also be competitors (other hospitals) for patients or staff.	– Make collaboration agreements, both nationally and locally	3
Citizens (taxpayers) (L)	Every citizen has a constitutional right to access appropriate healthcare and choose the supplier of treatment.	– Legal right to get access to medical care and right to choose service provider	1

External stakeholder and salience attributes	*Source of impact/salience*	*Source of influence*	*Probability to impact*
Special-interest group Regulators/licensing agencies (P, L, U) – Government – Parliament – Ministries (MSAH, MF, MCE, MEAE) – Agencies and Institutes (THL, Fimea, FIOH, RSAA) – Trade unions (P, L) – The local community (P, L) – Various political groups (P, U) – The media (U, symbolic Power)	Regional and national authorities have a strong impact on decision-making on the value networks and ecosystems. They create incentives and policies, further resulting in good-quality healthcare. The main decision-making falls typically to a local health authority. Additionally, regional, and national authorities include politicians, who may have political agenda, public decision-makers, who handle administration ensuring continuity of operations in the healthcare. At national level politicians are key operators in the health sector as they advise on policy programmes and initiatives.	– Consistency with regulations and healthcare policy – Cost containment – Patient access – The media: positive/negative image and influence public perception	5 1
Related healthcare organisations (P, L, U) – Other university hospitals (4) – Other hospitals in the OYS-ERVA region (5) – Other regional social and health service providers (42) – Education (University Oulu and UAS Oulu) (P, L)	Other university hospitals can be either partners or competitors. Competition may be direct competition for patients, or they compete for staff, especially highly skilled physicians. The role of the university next to the hospital greatly influences development—both from availability of skilled personnel and continuous development perspective—for effective and good quality treatment.	– Collaboration and/or competition – Continuous development (research and education)	2
Suppliers (P, L, U) Private sector (P, L)	Suppliers (equipment, support services and medicines) include public and private organisations providing healthcare materials and services, having a strong impact by providing products/services directly to patients, creating relationships to upstream and downstream in the service delivery process. Suppliers and service providers are in close collaboration with research organisations and patient associations.	– Innovate, develop, and provide new and more efficient systems and solutions to improve the quality of patient care – Collaborate with different stakeholder entities to improve their businesses	3
Third-party organisations (L) – KELA (Social Insurance Institution of Finland) – Insurance companies	Third-party organisations discuss and enforce the rules regarding payments of insurance compensation and reimbursements.	– Power to deny payment and/or compensation – Exert influence in areas that affect them or their constituents	3
Elected public trustees	Exert political influence and pressure and partially control fun ding.	– Funding containment – Positive image	3
Patients and their relatives (L) – Resident – Non-residents	Ability to select service providers (physicians, hospitals) and impact public perceptions.	– Choose provider – Influence public perceptions	3
3rd-sector, voluntary associations (P, L)	The public sector may also deliver some of its compulsory services from the third sector, especially in critical situations. Collaboration with specialised healthcare is based on legislation.	– Collaboration/coalition with other external stakeholder entities	2
International collaboration (P)	Collaboration, for example with other Nordic University Hospitals related to, for example, research, staff visits and exchange and patient treatment.	– Collaboration and/or/both competition – Continuous development (research and education)	1

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