Quality of jobs and Innovation generated Employment outcomes

QuInnE.eu

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The Regional Cancer Centre: Developing the Nation-wide Professional Network for Coordinated Cancer Treatment

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QuInnE - ***Qu****ality of jobs and* ***Inn****ovation generated* ***E****mployment outcomes* - was an interdisciplinary project investigating how job quality and innovation mutually impact each other, and the effects this has on job creation and the quality of these jobs.

Drawing on the Oslo Manual, both technological and non-technological innovation were investigated. Through quantitative analyses and qualitative organization-level case studies, the factors, as well as the mechanisms and processes by which job quality and innovation impact each other were identified.

The QuInnE project brought together a multidisciplinary team of experts from nine partner institutions across seven European countries.

QuInnE Project Member Institutions:

- *Lund University, Sweden*
- *The University of Warwick, UK*
- *Universitaet Duisberg-Essen, Germany*
- *Centre Pour La Recherche Economique Et Ses Applications (CEPREMAP), France*
- *Magyar Tudomanyos Akademia Tarsadalomtudomanyi Kutatokozpont, Hungary*
- *Universiteit van Amsterdam, The Netherlands*
- *Erasmus Universiteit Rotterdam, The Netherlands*
- *Universidad de Salamanca, Spain*
- *Malmö University, Sweden*

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More information about the project and project generated publications and material can be found at www.quinne.eu.

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The QuInnE teaching cases and teaching notes are based on the confidential field research conducted in the context of the QuInnE project. They are written to provide material for training and class discussion rather than to illustrate either effective or ineffective handling of a management situation. Personal names and identifying information from the research cases have been altered for the purpose of confidentiality. The case studies and teaching notes have been developed in cooperation with RSM Case Development Centre of Rotterdam School of Management, Erasmus University (www.rsm.nl/cdc).

The RCC case is largely based on confidential Swedish field research cases conducted in the context of the QuInnE project, WP6. For the purpose of confidentiality, all Organizational and personal names and identifying information from the research cases have been altered.

The Regional Cancer Centre: Developing Nation-wide Professional Network for Coordinated Cancer Treatment

Introduction

On 18th November 2016, Maria Adamsson had just returned from her *fika* (coffee break) and opened her speech draft for the Annual Nordic Oncology Conference. She was happy she could tell the story of the development of the Swedish Regional Cancer Centres. Developing the centres had been challenging, they could be considered innovations in health care organization, but eventually, she felt, that these solutions would bear lessons for all in the field.

Maria was a renowned professor and oncologist from Karolinska University Hospital in the urban area of Stockholm. She was one of the founding members of The Regional Cancer Centre (RCC). RCC was a unit that developed and coordinated cancer care at hospitals in one of the Healthcare Regions in Sweden with the purpose of fostering the equal cancer care throughout Sweden and strengthening the ties between the academia and clinics. RCC was operated with grants from the Swedish government and four local councils.

Since Maria and other cancer clinic professionals established RCC in 2011, it had been recognized in the Nordics for its innovative approaches in creating the ties between the regional hospitals through structural and organizational changes. Back in March, she was approached by the committees of the conference to share the practices at RCC.

While RCC had built its reputation, there was still some skepticism about its unconventional approaches to organizing the professionals in the cancer care. Some cancer researchers from other countries, with whom Maria attended the conference regularly, were unsure of how to encourage the involvement of doctors and clinical staff into the academia through such a national-level organization. Typically, the cancer care was coordinated within close regions. There were no national guidelines that aligned the work of professionals across the country. Medical professionals were notoriously protective about their individual discretion and responsibility regarding clinical practice and judgement. Others were unconvinced about the real value of the collaboration between the academia and the clinical world. The unspoken consensus amongst the professionals working at the hospitals, mainly doctors, was that much of discussions in the academia was not applicable to their daily operations. Other professionals - nurses, midwifes, administrative staff etc. - at the regional hospitals believed that there was little they could do to the academia because their daily work hours were filled up with the tasks with the patients.

History of RCC

The history of RCC dated back to 2009 when a governmental agency (Socialstyrelsen) report uncovered serious concerns about the cancer treatment in Sweden at the time. The report revealed that there was a significant difference in the patient waiting time as well as the methods and treatment across

geographical regions and different types of diagnoses. The chaotic organization of the cancer care was blamed also for the disparity in the patients' complications, survival, and competence. The report showed that every year, approximately 1500 patients with cancer diagnoses died due to the regional differences and 3000 due to the socioeconomic circumstances. Overall, the report concluded that the focus of the cancer treatment was not on the patients' perspectives, which had deteriorated the quality of care throughout a patient's route from prevention to diagnosis, treatment, rehabilitation and palliation.

A doctor recently described how the idea of RCC started:

> *"Seven or eight years ago, it was noticed that there was a clear inequality in Swedish cancer care, this was actually noticed by the professionals themselves, for many years, before any national register ... we could see that there was a difference in the patients' recovery depending on where in the country they lived. So, one started to be concerned. It didn't have to do with how severe the cancer was, but instead, it depended on which town you lived in. We noticed this, horrifically, that this was the case."*

The inequality of care along with a considerable gap in morbidity and mortality across the regions and population groups came to light particularly as the country was regulated by law to provide all members of the society with the equal care. This led the Swedish government to prioritize the cancer care with more governmental guidance, and in 2011, RCC was started as a project. During 2010-2012, the government finalized the establishment of RCC. During the establishment phase, they invested over 100 million SEK into these centres. For such a radical national-level improvement in healthcare, it was imperative that the clinicians from all - local and national – levels made contribution. However, the key question remained: *How could RCC get local clinicians involved in the process?*

Structure and strategies

After two years in 2013, the RCC was established as a permanent unit. The RCC was a product of Level structuring of care. Level structuring meant that highly specialized care was concentrated in few places, improving the quality of the care with the aim to make an effective use of the available resources. More specifically, the level structuring was a plan for the division of labor that described how, by whom, and where a specific type of care would be carried out. In practice, instead of concentrating all the care required for a condition to a few places, the parts of a patient's care chain were centralized or decentralized to ensure the provision of equal care across the country. This also made the highly specialized care more economically efficient.

Such work procedure and the organizational structure, whereby the cancer treatment was coordinated on a national level as opposed to a local level, was replicated at all other five regional cancer centres in Sweden. In this approach, both the development of new knowledge and the dissemination of new initiatives from the wider national network were seen as key challenges. As such, the goal of the cancer centre was to be an inter-organizational unit in two senses – by coordinating the work between hospitals in the Healthcare Region, as well as by mediating the collaboration of these partner hospitals and the national network. In addition to the brokerage roles, the unit also had autonomous research resources.

Indeed, some doctors were reluctant to be part of RCC. They argued it would mean that they had to work for RCC in addition to taking care of the daily operations at their hospitals. At the core of their reluctance was the hierarchical and power structure that were common to many medical institutions in Sweden. The doctors held the ultimate decision power, and they were the key person to implement or kill the innovative initiatives to improve the cancer treatment. However, they were afraid that RCC would eventually take away their discretion in deciding the direction of the hospitals.

Changing the process of improving cancer care

Maria believed that a number of key processual changes had provided solutions to the issues identified at the onset. At the core of the innovation work was the knowledge and the involvement of professionals.

New initiatives were started by the employees at the unit as a part of a deliberate aim to develop new ideas and make changes in the cancer care. To make the task more manageable, the employees worked in groups based on different diagnoses. In the teams, they developed innovations based on their clinical experience, knowledge and research. Every group had a process leader, which was often was a doctor. In comparison, in less classical diagnosis areas such as rehabilitation or prevention, the process leader could be a nurse or physical therapist. The process leaders worked closely with other colleagues of RCC to be trusted at the unit, to access important information and knowledge. They created the link between all the professionals at RCC and the team (s)he was responsible for. One described his mission as a process leader as:

> *"I have the overall responsibility, coordination responsibility for this (specific cancer diagnosis). I am supposed to keep myself updated on what's going on in the research field in general, and at all time coordinate and be in contact with the local patient process leaders at every hospital, there is one of these in every hospital responsible for the patients…. It is the specific hospital or clinic that is of importance and how this will practically work in the end."*

The innovation process started within the team, with the process leader in charge. Some of the innovation ideas were then developed by the team and implemented as pilot projects with the help of partners from the cancer care chain. If proven successful, they were extended to be implemented to the units or centres where it was considered necessary.

The RCC worked as a network organization with team-members from various local hospitals, whereby the staff in many different contexts interacted with patients and other professionals, making it possible to pick up many ideas from the floor and bringing up to the RCC units. The broad representation of occupations at the unit fueled the innovation process as various views on problems and solutions could be gathered.

In addition to the internal process of onboarding innovation projects, the RCC leveraged its professional network at the national level, with the other regional cancer centres, and at the international level. The RCC was involved in the *Cancerrådet* (The Cancer Council) – a group of professionals working with cancer. The group organized meetings six times a year to discuss topics including the agenda of the RCC for the upcoming year and how a specific cancer hospital could be more available for the patients. The knowledge about innovations that

were proved to be effective sometimes had spread from these other regional centres.

When implementing medical improvements in care, a board of directors served as the final decision maker. Thereafter, the unit director communicated the plan to the personnel at the unit. The team involved with the particular diagnosis then started the implementation in the specific care units. RCC supported the implementation at the units by providing, for example, the statistics, new data systems, and the access to personnel that can assist in the initial phase.

Having local practitioners as members in the teams provided a strong connection between RCC and the professionals in the field and facilitated the successful implementation process.

Organizational Innovations

RCC had 23 employees with different occupations: doctors, nurses, midwifes, IT-coordinators, data managers, communication strategists, administration staff, statisticians etc. They also had co-workers working part-time at the RCC. Those employees had one foot in the clinical work, close to the professions and patients, and one foot at the RCC. They provided insight into the clinical practice throughout the regions, and they were also selected to have the stature and legitimacy to be able to persuade the local units to adopt the procedures and the recommendations of the RCC. The representatives from the hospitals, where the clinical activities were carried out, shared the experiences with treatments and innovations with the RCC members. In sum, the RCC, as an organization, operated largely on a collegial basis.

Much of the work at the RCC was project-based and inter-occupational, combining research in the medical / clinical domains with the knowledge and experience of the professionals working closely with patients. The diffusion of the new medical knowledge and the practices regarding the treatment were based on the best-practice, collaborative processes, and the negotiations between the units and colleagues rather than on top-down decision making or command and control models.

The impact of the RCC establishment on the professionals were manifold. The employees working at the partner hospitals were now able to contact the unit with ideas and observations they made about the cancer care while working directly with their patients on a regular basis. This enabled them to impact the advancement of the cancer care in specific diagnoses. Before it was very difficult for the individual clinical who had an idea aiming to improve the cancer care for the patients. One doctor explains:

> *Before, if you got a smart idea it might not have been possible to go to the boss or to the operations manager who had not been involved in research and did not have any academic background, they were stunned and found themselves in an awkward situation. If you were going to the administration office it did not fit into the templates at all. So there was doubtless a wish and a need to capture thoughts and ideas, to dress them in words and to figure out how can we do a more sustainable development of these ideas…We (RCC) are now like a suggestion box so to say, come to us. We will help you as much as we can. Help you to move on (with your idea).*

Having their employees also working in the clinics made the implementation process easier. One doctor explains:

> *I would also like to say that, it's a bit of psychology in it, it's a question of credibility, some of us in the healthcare organization, if it something that we are tired of its 'von oben' directives, those kinds of directives overthrows us. The tasks I see as the most important thing is to prepare my surgeons as much as possible for is to be able to sort out among all that comes. We're usually joking about it. We do not need the patients, we are fully occupied anyway. And that means that if they deliver, in this case from RCC a process, a standardized care process, and tell the surgeons that this is how we think you should do, it gets a whole different credibility if **I** tell **my** colleagues in **my** hospital, because they know each other, and I still have a little finger left in the hospital and will be affected by the changes myself. And I have, I hope, a high level of trust at my unit. They know I've been working with this for thirty years. Do you believe it, we believe it.*

In addition, the RCC provided its employees with the opportunity to be part of the notable progress in the cancer care at the national level.

RCC also connected research and clinical practice, opening up the opportunities for the clinicians to be involved in the research and diffusion roles.

One process leader describes one of his tasks for RCC as follow:

> *At regular intervals, a couple of times a term, we talk with the clincials at the specific units, what are the problems, the bottlenecks. Then we look forward, what do we want to develop? It's possible to come up with brilliant new techniques, but it can also initiate new research projects. If the unit think there is something we can further develop in some way, something that is not studied…we can help them get in contact with the right (research) groups…we are an important link, so to speak.*

This added the variety and multidisciplinary to their work as well as facilitated the knowledge spillover from one sector to another, leading to the continuous generation of the innovative projects. These projects often included restructuring of existing work tasks, and in some cases, new workforces. The by-product of the processual and the organizational innovation of the RCC but also a factor instrumental in its success, was an overall improvement in the work satisfaction among the professionals in the field. One described some of the factors that improved the job satisfaction for the employees.

> *"It is partly the ability to be able to develop and to work with the issues and questions in a faster way…and some are driven by the fact that it feels like a meaningful work, to work to improve the care for cancer patients, the lives of cancer patients"*

The location of the RCC, in a Medical village science park, made it easy for the unit to cooperate with experimental and translational cancer researchers within the University Cancer Centre. This geographic location facilitated the conjoint academic research and clinic practices, giving a large potential for the research findings to be applied to clinical practices.

Examples of successful innovations in the cancer treatment
The red phone

One of the issues that was brought up at the RCC was with the care for bladder cancer, which had remained the same over 30 years. In particular, bladder cancer was known to take an extensive time from the symptom identification to the diagnosis by the doctors (on average, 144 days from the blood in urine to the diagnosis). One reason for this was that the patients had little knowledge about the importance of seeking care when they found blood in their urine. Another was that the patients who did seek care were often sent home with antibiotics.

With the urologists working at the hospitals, the RCC initiated a project; "The red phone" where healthcare staff or patients themselves could call in and get in direct contact with the clinical nurses working at the Department of Urology, leading to faster appointments for the medical investigations such as kidney radiology, endoscopic urinary bladder examination and urine sample.) Most patients found the telephone number on the internet or received it from their primary care centre. Based on the evaluation, the project indicated that the whole care chain was both faster and less expensive than before. The time from finding blood in urine to getting diagnosed was halved. Compared with the patients who did not call the red phone, the patients who called had a shorter lead time, fewer health-care contacts, and reduced health-care costs.

Diagnostic centre

Another successful project started at RCC was the cancer diagnostic centres. In 2012, as a collaborative initiative between Region of Scania and the RCC , Sweden's first diagnostic centre was established. The diagnostic centre mainly targeted the long-term patients with undiagnosed sickness. The mission was to reduce the time until the cancer detection and the optimization of secondary prediction. The diagnostic centre started as a project with doctors and other healthcare professionals. The targeted patient group was offered a possibility to go to the centre either to be diagnosed or to rule out certain diagnoses after a doctor in the primary care had made an evaluation of the patient's health without being able to set a diagnosis. Having 1 in 5 patients, who went to the diagnostic centre, diagnosed with the cancer during the days at the centre, the initiative proved to be very effective. The concept of the diagnostic centre later spread to the rest of the country. In 2016, there were 5 diagnostic centres in this Healthcare Region of Sweden alone.

Contact nurses

By the law, which came into effect in 2010, all cancer patients were entitled to have permanent care contacts. This led to the establishment of Contact Nurse as a new occupation. The contact nurses mediated the communication between the patients and the health care units, making the care more accessible and the patient more involved in the entire care journey. The specific responsibility of a contact nurse was agreed upon by the Swedish Association of Local Authorities and Regions. By 2016, the number of contact nurses reached 200 in this healthcare region. RCC held responsible for the supplementary training for the contact nurses, making RCC a platform for nurses highly engaged with the cancer care.

Looking ahead

After thinking about how the RCC created the collaboration between clinical and professional world in cancer treatment, Maria was reassured that the dynamic of the Regional Cancer Centre needed more appraisal from the international network. She believed that the Annual Nordic Oncology Conference would be an ideal place. Would Maria be able to convince other professionals about the success of the RCC?