HRM Innovations in Dutch General Hospitals: A Diverse Spectrum, Limited Diffused

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HRM Innovations in Dutch General Hospitals: A Diverse Spectrum, Limited Diffused

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Preface

This research was conducted at the request of the HRM department of the University of Twente. This department is "dedicated to cutting-edge research and teaching in Human Resource Management with a particular emphasis on the HRM, Technology and Innovation, in search for developing partnership between HRM and UT faculty members, bachelor and master students, and HR executives, in research and teaching" (University of Twente, 2016). Currently, I know the company life better than the academic life. Therefore, I preferred an internal project over an external project, assuming that this choice would offer me more learning opportunities.

Although the assignment was intended for a team of five students, the final team size was three students from the master's programme in business administration. These three students had different backgrounds. Two young female full-time students with limited or no work experience and I, a not so young anymore male part-time student with extensive work experience. Not unexpected, the forming and norming phases, as defined by Tuckman and Jensen (1977), of the team took a bit longer than normally with the more homogeneous teams at my work. But work team heterogeneity promotes creativity and problem solving ability (Cox & Blake, 1991) and in the long run, diverse teams perform better (Watson, Kumar, & Michaelsen, 1993). I agree with that and I have learnt from my co-researchers' skills and insights that I would not have learned from my colleagues at work.

Many a little makes a mickle. Having a full time job means that there was limited time left for writing a thesis. A good part of the research was therefore done during the daily lunch breaks at work and the rest was done in the evening hours and in the weekends.

The results of this study will possibly be used by our mentor in one of her studies about HRM innovations and the idea that this research could in this way contribute to academic knowledge is motivating. I hope that the reader will gain more insight about the current state of HRM innovations in Dutch general hospitals and that this thesis will contribute to its diffusion.

I thank my co-researchers for always being optimistic and my mentor for her enthusiasm, her willingness to facilitate in whatever we needed and for probably spending more time than she can justify. I thank the external reviewer for coding interview reports. And, of course, I thank the interviewees who found time for me and my co-researchers in their often overloaded agendas and shared some great stories with us about HRM innovations.

Marco Rijkeboer

Enschede, August 2016

About the author

Marco Rijkeboer was born in Enschede on August 8, 1967. After graduating from secondary technical school in 1990, he started working first as an electrical engineer and later as a technical writer. In 2013 he completed his bachelor technical business administration at Saxion university of applied sciences in Deventer. After completion of his pre-master study at the university of Twente, he started in 2014 his master study business administration at the same university.

Abstract

The healthcare sector faces several changes and challenges. Dutch general hospitals (DGH) have distinct characteristics and therefore possibly also distinct challenges. HRM innovations is one of the areas that can contribute to an increase of organizational performance. Currently, it is not clear what the state of affairs in the field of HRM innovations in DGHs is. This leads to the research question: *What is the current state of affairs in the field of HRM innovations in Dutch general hospitals?* A clear picture of this current state does not only contribute to theory building. From a practical perspective, this research is relevant because it gives DGHs the opportunity to learn from each other's HRM innovations.

We define HRM innovations in DGHs as: "are all management decisions and activities that affect the nature of the relationship between hospitals in the Netherlands where during day and night all forms of medical specialistic help can take place, and its employees, that are perceived as new to the hospital." and categorize HRM innovations in: (a) employment innovations, (b) work innovations, and (c) organizational innovations.[1]

Within Europe, the adoption rates of innovations in the Netherlands are above average. Regarding cultural differences, the Netherlands score high on femininity and individualism. A high femininity can have a positive effect on the initiation stage of an innovation and individualism has a strong, and positive effect on both scientific progress and technological innovation.

The healthcare sector is one of the largest employers in the Netherlands. The trends in this sector are: (a) a shift of work from highly educated employees to lower educated employees with an increase in specialization; (b) mergers, creating large hospitals with satellite clinics around it.

The literature review of HRM innovations in healthcare yielded a diverse spectrum of 17 HRM innovations in all three categories. Most of the HRM innovations in healthcare are found in a specific setting or in a specific country, meaning that it is uncertain if they, *mutatis mutandis*, can be applied to the situation in the Netherlands.

Some of the HRM innovations cuts across others. For example *Lean* and *Gemba* are closely related but still distinct. Others, like *organisational citizenship behaviour* and *pro-social organisational behaviour* are less distinct. While most of the HRM innovations are concrete and literature is larded with several examples, like *serious gaming*, others, like *Big Data*, are more conceptual.

We started the research design with an analyses of the HRM part of the websites of all DGHs to get a first impression of the current state of affairs in the field of HRM innovations in DGHs. Our request to all DGHs (n=84) to participate in an open interview resulted in 10 invitations. The open interviews were recorded, anonymously transcribed, and worked out in interview reports which were sent to the interviewees for review. The corrected interview reports were, based on selection criteria, coded in two levels. To check the reliability of the coding, we compared our coding with that of an external reviewer and concluded that the reliability was reliable. To analyse the information, the HRM innovations were categorized and displayed in a Venn diagram.

The finding show that there is a focus on e-HRM with e.g. Big Data, blended- or e-learning, e-recruitment, digitalized knowledge centres, and serious gaming. From a social perspective, DGHs can: focus on becoming a learning organisation, stimulate employees to e-learn in leisure time, adopt a Lean or Gemba management philosophy, become a magnet hospital, offer 60+ employees to work half time and get paid 75%, derive corporate core values from the employee's core values and align them to multiple choice of employment systems, focus on sustainable employability, and introduce

[1] See the Table of Definitions for an overview of all used definitions.

participatory healthcare. From a communication perspective, DGHs keep internal and external applicants abreast of job offerings by e.g. their website or by social media, they display employee satisfaction publicly, they instantly feedback employee performance, they transmural share information or share a pool of flex workers or a platform for the exchange of talents. From a perspective of collaboration, DGH work on new forms of cooperative and coopetitive relationships.

Generally, The webpages yielded HRM innovations in the categories employment innovations and work innovations, but no organizational innovations, where the open interviews yielded HRM innovations in all three categories. System thinking is dominant. But if DGHs are involved in a merger, then this is their focal point. Most of the HRM innovations are work related. The range of found HRM innovations per DGH is wide (10) with a modus of 5. The distinction between the three categories of HRM innovations is not always sharply delineated and there is an overlap between them.

We conclude that regarding the current state of affairs in the field of HRM innovations in DGHs:

- DGHs have a broad spectrum of HRM innovations that are distinctive from other sectors in the Netherlands as well as from hospitals in other countries.
- The diffusion of HRM innovations between DGHs is limited.
- The perception of HRM managers of DGHs about HRM innovations in DGHs deviate from the literature as well as mutually.
- Several HRM innovations in DGHs are driven by technical innovations.
- Several HRM innovations lead DGHs towards a holistic systems thinking.
- Mergers can lead to: (a) incompatible and conflicting systems which requires thorough system knowledge to cope with; (b) alienation between HRM professionals en employees.
- HRM innovations can: (a) lead to headcount reductions in DGHs and HRM departments themselves; (b) may require new skillsets of employees where some employees will be unable to keep up with the accelerating pace of changes; (c) graze the boundaries of privacy, raising ethical questions.
- Possible future HRM developments in DGHs are: (a) HRM becomes responsible for the patient in his role as a human resource, (b) collecting data about employee performance becomes more common and more accepted, (c) the increasing collaboration between DGDs in combination with the current trend of mergers, ultimately can lead to one large DGD with one central HRM department.

We recommend that DGHs:

- that are affected by the complex nature of the increasing systemisation of HRM, deploy a dedicated HRM systems engineer.
- share HRM innovations with each other.

We suggest the following future research:

- a replication of this research;
- an extension of this research towards the other categories of Dutch hospitals;
- an inclusion of a threshold in the definition of an innovation;
- work out possible future HRM developments in DGHs.

Table of Abbreviations

AIHW	Australian Institute of Health and Welfare
AMO	Ability-Motivation-Opportunity
BIG	*Beroepen in de Individuele Gezondheidszorg* (professions in individual healthcare)
CAQDAS	Computer Assisted Qualitative Data Analysis Software
CBS	*Centraal Bureau voor Statistiek* (central agency for statistics)
DANS	Data Archiving and Networked Services
DGH	Dutch General Hospital
e-HRM	electronic HRM
e-learning	electronic learning
ERP	Enterprise Resource Planning
FTE	Full Time Equivalent
FWG	*functiewaardering gezondheidszorg* (job evaluation healthcare)
HPWS	High Performance Work Systems
HR	Human Resources
HRD	Human Resource Development
HRM	Human Resource Management
HSMR	Hospital Standardised Mortality Ratio
ICT	Information and Communication Technology
IoT	Internet of Things
IWB	Innovative Work Behaviour
MC	Multiple Choice
NHS	National Health Service
NPCF	*Nederlandse Patiënten en Consumenten Federatie* (Dutch Patients and Consumers Federation)
NVZ	*Nederlandse Vereniging van Ziekenhuizen* (Dutch Hospitals Association)
OCB	Organisational Citizenship Behaviour
OD	Organisational Development
SAP	*Systeme, Anwendungen und Produkte* (Systems, Applications and Products)
PSOB	Pro-Social Organisational Behaviour
TM	Talent Management

Table of Definitions

Big Data	"a development in which large amounts of data from various data sources, are related to each other to search for patterns without prior hypotheses. The data often come from different areas and are used for purposes other than for which it was originally collected" (Ottes, 2016, p. 9).
Blended learning	"the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (Garrison & Kanuka, 2004, p. 96).
Coopetition	"the simultaneous use of cooperation and competition in order to achieve better collective and individual results" (Czakon, Mucha-Kuś, & Rogalski, 2014, p. 122).
Culture	"the collective programming of the mind that distinguishes the members of one group or category of people from others" (Hofstede, 2011, p. 3).
Diffusion	"the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 2003, p. 5).
Direct voice	"two-way communication between management and individual employees without the intermediation of a third party" (Bryson, 2004, p. 240).
e-HRM	"a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support of and/or with the full use of web-technology-based channels" (Ruël & Bondarouk, 2004, p. 2).
e-learning	"the use of computer network technology, primarily over an intranet or through the Internet, to deliver information and instruction to individuals" (Welsh, Wanberg, Brown, & Simmering, 2003, p. 246).
Gemba	"The gemba is where the product of service becomes of value to the customer, that is, where the product actually gets used. It is in the gemba that we actually see who our customers are, what their problems are, how the product will be used by them, what supporting services are needed, etc." (Mazul, 1997, p. 4).
General hospital	"an institution where during day and night all forms of medical specialistic help can take place" (CBS, 2015c).
Healthcare innovation	"an idea, practice or object that can be regarded as new by an individual or other unit that will adopt the innovation" (NVZ, 2015b, p. 9).
HRM	"all management decisions and activities that affect the nature of the relationship between the organisation and its employees" (Beer, Spector, Lawrence, Mills, & Walton, 1984, p. 1).
HRM innovation in DGH	"all management decisions and activities that affect the nature of the relationship between hospitals in the Netherlands where during day and night all forms of medical specialistic help can take place, and its employees, that are perceived as new to the hospital."
Innovation	"An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 11).

Lean thinking	“a bundle of concepts, methods, and tools derived from the Toyota Production System, the production philosophy of Toyota Motor Corporation” (Holden, 2011, p. 265).
Learning	”The development of insights, knowledge, and associations between past actions, the effectiveness of those actions, and future actions” (Fiol & Lyles, 1985, p. 811).
Learning organization	“Organisations that position learning as a core characteristic” (Davies & Nutley, 2000, p. 998).
Professional	“professional managers such as the director of nursing, medical director, and specialists such as consultants and occupational physicians” (McDermott, Fitzgerald, Van Gestel, & Keating, 2015, p. 3).
Pro-social organisational behaviour (PSOB)	“is behaviour which is (a) performed by a member of an organization, (b) directed toward an individual, group, or organisation with whom he or she interacts while carrying out his or her organizational role, and (c) performed with the intention of promoting the welfare of the individual, group, or organization toward which it is directed” (Brief & Motowidlo, 1986, p. 711).
Radical innovation	“[Innovations] that profoundly alter the basis for competition in an industry, often rendering old products or ways of working obsolete” (C. A. O’Reilly & Tushman, 2004, p. 76).
Serious game	“those that target the acquisition of knowledge as its own end and foster habits of mind and understanding that are generally useful or useful within an academic context” (Klopfer, Osterweil, & Salen, 2009, p. 21).
Sustainable employability	“the capability of employees to participate in a healthy, vital and productive way in paid work until they are eligible for a pension” (Kraan & Wevers, 2012, p. 1).
System	“Systems are composed of multiple, interconnected components: people, machines, processes, and data” (Schyve, n.d., p. 2).
Systems thinking	“a general conceptual orientation concerned with the interrelationships between parts and their relationships to a functioning whole, often understood within the context of an even greater whole” (Trochim, Cabrera, Milstein, Gallagher, & Leischow, 2006, p. 539).
Talent management	”In the broadest possible terms, TM is the strategic management of the flow of talent through an organisation. Its purpose is to assure that a supply of talent is available to align the right people with the right jobs at the right time based on strategic business objectives” (Iles, Chuai, & Preece, 2010, p. 12).
Transmural care	“is provided by healthcare professionals from primary and hospital teams on the basis of coordination and cooperation, with shared responsibility and specification of delegated responsibilities” (Oeseburg, Jansen, & De Keyser, 2004, p. 215).
Volunteerism	“long-term, planned, prosocial behaviours that benefit strangers and occur in an organizational setting” (Penner, 2002, p. 448).

Table of Implementation of HRM Innovations in DGHs

HRM Innovation	Description[a]	DGH[b]
Absenteeism tracking	In an absenteeism tracking system, managers can register employee sickness and recovery.	Spaarne Ziekenhuis (✓)[c]
Application help	Application tips on website.	Reinier de Graaf Groep (✓)
Application management	External applicants can create an account to place his curriculum vitae and to manage his applications.	Ziekenhuis Lievensberg (✓)
At any time a tailored meal[2]	The appetite of a patient depends on how he feels at a certain moment in time. Therefore tailored meals can be served at any moment.	DGH#4 (✓)
Atmosphere	Creation of open and direct atmosphere. Say what you do and do what you say.	Bethesda (✓)
Automated presence registration & employee/customer identification	At arrival and departure, the employee holds his smartphone against the pass of the customer to register. This presence registration, employee and customer identification is used to automatically: (a) make the invoice for the client, (b) to update the wage administration.	DGH#9 (✓)
Big Data, to compose optimal teams	Use Big Data to analyse characteristics of individual employees to form optimal teams.	DGH#3 (✓)
Blended learning	E-learning is combined with traditional class room learning. E-learning is a digital part of the overall training package for clinical courses, training days, skills and practical tests in the skills lab. Several DGHs mention a shift from classical classroom learning to blended and e-learning.	DGH#3 (✓), BovenIJ ziekenhuis (✓)
Career carousel	Students have the opportunity to meet at least three professionals so they can orient themselves for a career in healthcare.	DGH#7 (✓)
Career development	Retention and training of employees who have the potential to grow into a management function.	DGH#1 (✓)
Chain of care	In a chain of care, the interfaces between different forms of care are harmonized. It is primarily a healthcare innovation. From an HRM perspective, it can lead to an increase of efficiency due to scale of economy.	DGH#1 (✓)
Collective calculation of training needs	For all functions, the calculation for training needs is calculated for all hospitals in the region to increase control over this closed market.	DGH#5 (✓)
Connecting MC of employment to company goals	The Multiple Choice of employment is connected to the company goals.	DGH#4 (✓)
Contact regulations	Misuse of social media tarnished the reputation of the DGH in the past. Therefore the DGH made a guideline with the do's and don'ts of social media.	DGH#4 (✓)
Continuous measurement of employee satisfaction	A minor incident during an e.g. biannual employee satisfaction survey can have a major impact on the result. By measuring weekly, the results become more reliable and immediately actions can be taken and communicated towards the employees.	DGH#9 (✓)
Cooperation	The HRM department cooperates with all care and cure organisations in the region or with other care organisations on different levels. E.g. to develop trainings.	DGH#1 (✓)
Cooperation	Cooperation with other hospitals and/or high schools regarding training.	Haga-Ziekenhuis (✓)

(continued)

[2] This HRM innovation is regarded as questionable (see Appendix Q).

HRM Innovation	Description[a]	DGH[b]
Coopetition	HRM departments of competing hospitals work together on expensive HRM improvements.	DGH#1 (✓)
Corporate values derived from employees values	Corporate core values are derived from the employee's core values so employees feel identified by them.	DGH#3 (✓)
Crew resource management	Teams are trained in and encouraged to speak up when they suspect that something could be harmful to the patient	DGH#4 (✓)
Database	Store digitalized information in a database to increase accessibility of information and reduce costs.	DGH#3 (✓)
Delegation HRM administration to employee	Digitization of information has made it possible that a part of the personnel administration is now processed by the employee instead of by HRM.	DGH#4 (✓)
Digitization medical library	Information on paper is replaced by information in electronic form. This reduces floor space and increases accessibility.	DGH#4 (✓)
Discretionary training	Employees have a training budget that they can spend on the training they deem necessary for themselves.	DGH#5 (✓)
Displaying employee satisfaction	Employee satisfaction is measured periodically and displayed in performance indicators in a quality window that is publicly available.	Nij Smellinghe (✓)
E-learning in leisure	Employees follow e-learning modules in their leisure time. It is perceived as maintaining ones profession.	DGH#6 (✓)
E-learning management	Electronic form of learning. Learning modules are embedded in an intranet portal. Managers and employees can keep track of progress in this system.	DGH#1 (✗)
Emotional counselling	A support team offers emotional counselling for employees who are confronted with aggression or dramatic situations like the dying of a child.	Rijnland Ziekenhuis (✓)
Employment coach	An employment coach from an internal career consulting firm investigates in a conversation with the employee career and employment questions	Antonius zorggroep (✓)
Empowerment	Employees of the wards have in the project "Productive Ward" opportunities to improve their work, with the result that they have more time for direct patient care.	Isala-Diaconessen-huis (✓)
Enforcement of learning	Employees are expected to collect yearly a certain amount of study points that can be gained by participation in courses and trainings.	Meander Medisch Centrum (✓)
Flat HRM organisation	By focussing on short communication line and laying responsibilities as low in the organisation as possible, a flat organisation is established. The logic behind this is that it improves efficiency.	DGH#1 (✓)
Flexible reward	Employees can, within a framework, flexibly compile their own benefits package. For example, for commuting costs, and a bicycle plan.	Streekzieken-huis Koningin Beatrix (✓)
Gemba, informing	Management walks around on the work floor and talk to the employees so they know what is happening in the workplace.	DGH#1 (✓)
Gemba ,learning	Two form of learning on the work floor were identified: indoor training and bedside teaching.	Tjongerschans (✓)
Harmonisation of job classifications	Dutch hospitals basically all do the same work and use the same FWG (job evaluation healthcare) but use different profiles. Harmonization of the job structure and embedding in the collective agreement would save cost throughout the Dutch healthcare system.	DGH#9 (✗)

(continued)

HRM Innovation	Description[a]	DGH[b]
HRM business partner	The role HRM business partner deviates from the classical HRM role in two perspectives: (a) closer contact with managers, (b) thinking with manager about strategic HRM issues.	DGH#1 (✗)
Internal employment agency	The collective of DGHs raising an internal employment agency to compete with the external employment agencies who recruited personnel of the DGHs and rented them back at the DGHs for a higher price.	DGH#5 (✗)
Internal job alert by email	New vacancies are emailed to all employees.	DGH#9 (✓)
Introduction program	Introduction information, for example in the form of a booklet on the website or a presentation on the website for new employees, protected by a password. Following this digital introduction program can be obligatory.	Vlietland (✓)
Job alert	An applicant receives an email when there is a job available that matches his profile or receives weekly an email or digital newsletter with vacant positions. An applicant can also keep breasted of new job offerings via Facebook, Twitter, LinkedIn.	Slingeland Ziekenhuis (✓)
Knowledge centre	Knowledge centre (a.k.a. open learning centre) with a medical library, practice rooms, classrooms and computer workstations that is accessible to all employees.	Sint Lucas Andreas Ziekenhuis (✓)
Knowledge sharing	Sharing knowledge and experience between employees.	Westfries-gasthuis (✓)
Lean	Working from a Lean management philosophy, leads to providing only those services that are in the best interest of the patient.	DGH#1 (✗), DGH#7 (✓)
Lean	All managers are trained as Lean manager. The Lean Manager identifies waste on a Lean-board with his employees and then tries to eliminate this waste.	DGH#7 (✗)
Learning organization	HRM assist the organization in becoming a learning organisation.	Antonius zorggroep (✓)
Magnet hospital	The hospital adopts the principles of excellence or excellent care.	DGH#5 (✓)
Multiple-choice system for employment	It lets an employee adjust some of the terms on personal circumstances or to make the choices that fit his phase in life. For example, to exchange money or time to contribute to a new bike, a membership in a union or professional association or fiscally attractive travel expenses.	Deventer Ziekenhuis (✓), Groene Hart Ziekenhuis (✓), Flevo-ziekenhuis (✓), Ikazia (✓), IJsselland ziekenhuis (✓), Slotervaart-ziekenhuis (✓), Ziekenhuis Gelderse Vallei (✓), Zuwe Hofpoort Ziekenhuis (✓)
Networking	Employees are stimulated to participate in various networks. The advantage of being part of networks is that one knows what's going on, to learn, to exchange ideas and to accelerate in that way.	DGH#10 (✗)
Old boys network	HRM managers informally appeal to each other. For example when someone needs an employee with certain knowledge or skills, or when one has supernumerary staff.	DGH#6 (✓)
Open application	Offering opportunity for open application on website.	Reinier de Graaf Groep (✓)
Outsourcing non-core activities	The core business of the hospital is caring for their patients. Work that is not part of the core business is outsourced.	DGH#8 (✗)

(continued)

HRM Innovation	Description[a]	DGH[b]
Outsourcing people quadrants of Ulrich model	The HRM model from Ulrich defines four roles. The people related roles: (a) strategic partner and (b) change agent, and the process related roles: (c) administrative expert and (d) employee champion. Partly outsourcing the people related roles, improves the quality of these roles and reduces the HRM headcount.	DGH#10 (✗)
Participatory healthcare[3]	A physician sees the patient as a partner and together they face the challenges of the patient.	DGH#8 (✗)
Pool sharing	Sharing of flex workers by several DGHs.	DGH#1 (✓), Sint Franciscus Gasthuis (✓)
Pool sharing	Flexible pool of employees by working with different forms of contracts like fixed, flexible and freelance to become an agile organisation.	Laurentius Ziekenhuis (✓)
Pool sharing	A platform for the exchange of talents between participating DGHs. This leads to job enrichment of the employee.	St. Elisabeth Ziekenhuis (✓)
Pre-recruitment	The DGH organizes different activities where interested parties can meet employees and have the opportunity get to know the DGH better. There are regular orientation visits for secondary schools students or guided tours The DGH participates in educational and professional markets and on regional job fairs. Furthermore, the DGH maintains at least once every two years an open day.	St. Elisabeth Ziekenhuis (✓)
Prevention officer	Employees who have an interest, are trained to become a prevention officer. This is a secondary task. The logic behind this is that they know best what is going on their department.	DGH#1 (✓)
Preventive sustainable employability	Working on vitality start already with junior employees to prevent having problems in old age.	DGH#4 (✗)
Process nurse	A nurse with logistical knowledge who manages the dismissal process of the patient.	DGH#2 (✓)
Process optimisation with activity trackers	Employees of various departments are equipped with an activity tracker. The collected logistical data is used for process optimisation.	DGH#7 (✓)
Reward	Job security when following a training from the DGH.	Bernhoven (✓)
Role play	sTimul Netherlands, care-ethical lab: Training by role plays to confront caretakers with their own behaviour and thereby learning to do it differently.	ZorgSaam Ziekenhuis (✓)
Serious game	In a fictitious DGH, employees learn what the added values of their colleagues are and how they must work together as a team for maximum results.	Laurentius Ziekenhuis (✓)
Skill lab	Skills lab can be equipped with manikins and phantoms in order to mimic the overall care of patients. Several forms of skills labs were identified. Some skills labs work with video feedback. One has made a distinction between a “wetlab” and a “drylab”. One employs an amanuensis. One DGH has a mobile skills lab. No DGH mentioned that they share a skills lab; they all have their own skill labs.	BovenIJ ziekenhuis (✓), Flevozieken-huis (✓), Isala (✓), Onze Lieve Vrouwe Gasthuis (✓), Tjongerschans (✓), Westfries-gasthuis (✓)
Small teams	Working in small teams.	Ziekenhuis Amstelland (✓)

(continued)

[3] This HRM innovation is regarded as questionable (see Appendix Q).

HRM Innovation	Description[a]	DGH[b]
Strategy focus HRM personnel	HRM employees are trained to develop them from an administrative expert towards a strategic advisor for management.	Spaarne Ziekenhuis (✓)
Sustainable employability	To keep employees physically healthy, they can get a discount on a fitness membership, participate in a running group, fiscal advantage at purchase new bike and stimulation of traveling by bike and can participate in non-smoking programs and/or weight watchers group. To keep employees mentally healthy, they can participate in massages, meditation and "balance@work" program.	Sint Franciscus Gasthuis (✓), VieCuri Medisch Centrum (✓)
Three-click rule	All HRM related information is accessible within maximal three mouse clicks.	DGH#9 (✓)
Train-each-other program	All cure managers where given the task to come with a proposal about how the DGH should organise cure. The result was that they started to cooperate, shared knowledge, and most importantly: they learned not only to manage top-down their own department, but became aware of the consequences of their processes in other departments.	DGH#5 (✓)
Train employees how to cope with change	HRM innovations yields resistance. The DGH gives their employees workshops about how to cope with change.	DGH#6 (✓)
Transfer of learning	Before, during and after a learning route, the transfer is increased by the manager, the teacher or the employee.	Gelre ziekenhuizen Zutphen (✓)
Transmural coordination	Some DGHs only have transmural sharing of information of incidents. Others have a transmural coordinator to ensure a good regional transmural coordination.	Bethesda (✓), Antonius zorggroep(✓), Sint Franciscus Gasthuis (✓)
Unified leadership training	Managers, specialists and nurses work closely together and depend on each other. Instead of different leadership trainings for these different targets groups, they all follow the same unified leadership training.	DGH#9 (×)
Vacancy pool	Vacancies are shared in a vacancy pool.	DGH#1 (✓)
Virtual training	E-learning in a virtual reality environment.	Catharina Ziekenhuis (✓)
Vitality week	In an annual vitality week, employees are made aware of the importance of health and encouraged to change their live style.	DGH#9 (✓)
Voluntary workers	Recruitment of voluntary workers.	Maasziekenhuis Pantein (✓)
Work capacity monitor	Part of an employee survey is measuring the work capacity. The employee get the results instantly. The organisation can facilitate the employee to increase his work capacity.	DGH#7 (✓)
HRM workflow	Optimise HRM processes in a workflow.	DGH#3 (✓)
Work half time and get paid 75% for 60+ employees	HRM offered the 60+ employees to work half time and get paid 75% to decrease overall sickness rate, decrease average loan costs and increase inflow of youngsters.	DGH#5 (✓)

[a]This colomn is the unique identifier.

[b]On the webpage of a DGH found HRM innovations are shown by the full name of the DGH. HRM innovations found during the open interviews are shown by the abbreviation DGH and its serial number.

[c]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note: All on the websites of DGHs found HRM innovations are implemented.

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1. Introduction

Compared to other sectors, the healthcare sector has several distinct characteristics (Michie & West, 2004). In his organizational configurations framework, Mintzberg (1979) labelled organisations in this sector professional bureaucracies. The healthcare sector operates within a complex web of stakeholders including government, private providers, health insurance companies, healthcare managers, clinicians and professional associations, trade unions and consumer lobby groups (T. Bartram & Dowling, 2013). The hospital sector is the most resource-intensive component of the healthcare system (AIHW, 2006). Townsend and Wilkinson (2010) argue that human resources are of crucial importance for the performance of healthcare organizations and according to McDermott et al. (2015) HRM has particular potential to contribute in the high-impact, human-capital-intensive, multiprofessional, milieu of healthcare.

According to the *Nederlandse Vereniging van Ziekenhuizen* (NVZ) (Dutch Hospital Association), the healthcare sector is one of the largest employers in the Netherlands (NVZ, 2015b). The Dutch healthcare is a based on a regulated competition model. In the model of Dutch healthcare, the primary stakeholders are: (a) patient, (b) healthcare provider, and (c) healthcare insurer who operate in three submarkets. Secondary are: (d) patient federation, (e) government, and (f) professional association (see Figure 1).

Since 2006, the Dutch healthcare care insurance is based on risk equalization through a risk equalization pool. A compulsory insurance package is available to all citizens at affordable costs (Ministerie van Volksgezondheid Welzijn en Sport, 2016b).

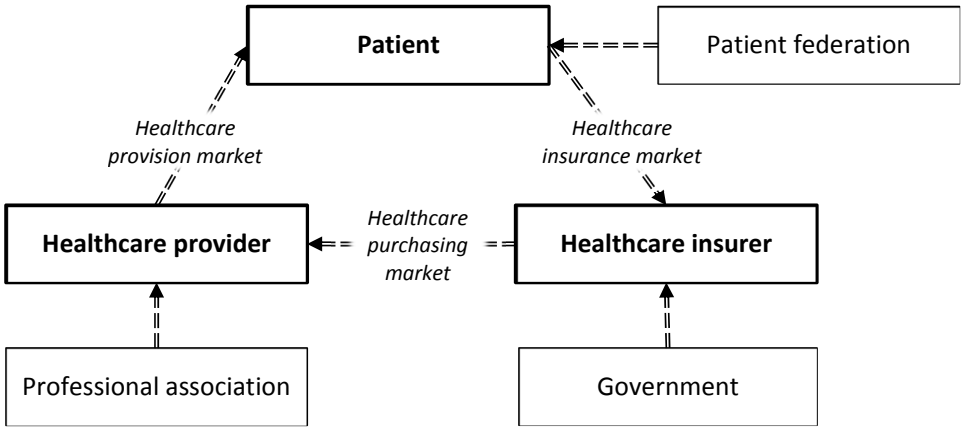


Figure 1. Organization of Healthcare in the Netherlands.
Primary stakeholders are in bold, secondary stakeholders are in plain text, and markets are in italic. Part about stakeholders adapted from the website www.zorgvoorinnoveren.nl; part about submarkets adapted from "Dutch Health Care Performance Report," by Westert, G. P., Van den Berg, M. J., Zwakhals, S. L. N., De Jong, J. D., and Verkleij, H., 2010, *Centre for Prevention and Health Services Research Public Health and Health Services Division,* p. 207.

The *Nederlandse Vereniging van Ziekenhuizen (NVZ)*, (Dutch Hospitals Association) is the professional association of the Dutch general hospitals (DGH) and categorical hospitals. They focus on the collective representation of its members and supports them in their role as healthcare provider, entrepreneur and employer (NVZ, 2015a).

A *general hospital* is an institution where during day and night all forms of medical specialistic help can take place (CBS, 2015c). An *academic hospital* is a specialist medical centre for treatment and nursing at night (with an emphasis on highly specialized care for patients with rare or complex

diseases), scientific research and training (CBS, 2015a). A *categorical hospital* is an institution where medical and nursing care for a specific illness, disease or disorder or group is granted to persons in a particular age group[4] (CBS, 2015b).

In the Netherlands, general hospitals are with 189725 jobs (67.4%) bigger than academic hospital 73660 jobs (26.2%) and categorical hospitals 17989 jobs (6.4%) together (CBS, 2014). The conclusion that general hospitals is the biggest institution is supported by the fact that in the Netherlands, in 2011[5], 60% of health care expenditure was spent in general hospitals (NVZ, 2013) and 54% (83 out of 155) of Dutch hospitals are general hospitals (Stichting Dutch Hospital Data, 2013).

Various organisations monitor and regulate the quality of DGHs. In 2015, healthcare in the Netherlands was estimated in the Euro Health Consumer Index to be the best of Europe (Björnberg, 2016). The Dutch government enforces the quality of the healthcare sector by law. The enactment *Beroepen in de Individuele Gezondheidszorg* (BIG) (Professions in Individual Healthcare) is a Dutch law that establishes in what way healthcare workers are qualified to operate in healthcare (Rijksoverheid, 2016). The professional titles of care takers in the Netherlands are protected by the same enactment and care takers must register themselves in a BIG register and reregister every five years. This register also shows any incidents and is public (Ministerie van Volksgezondheid Welzijn en Sport, 2016a).

At BIG registered healthcare providers, statutory disciplinary rules apply. This is covered by the *Tuchtcolleges voor de Gezondheidszorg* (Disciplinary Tribunals for Healthcare). Any Dutch resident can file a complaint; This will start a disciplinary procedure (Tuchtcolleges voor de Gezondheidszorg en College van Medisch Toezicht, 2016).

BIG registered healthcare providers are also accountable to the *Inspectie Gezondheidszorg* (Health Inspectorate). This an independent regulator and part of the *Ministerie van Volksgezondheid, Welzijn en Sport* (Ministry of Health, Welfare and Sports). Through monitoring, enforcement and investigation of criminal offenses, they guard and we promote the safety and quality of care (Inspectie voor de Gezondheidszorg, 2016).

The *Nederlandse Patiënten Consumenten Federatie* (Dutch Patients Consumers Federation) is an umbrella organization, representing over 160 patient organisations. They give patients a voice in the physician's parlour, in politics, the health insurer and in the news. They grade on their website all Dutch hospitals (Nederlandse Patienten Consumenten Federatie, 2016).

The healthcare sector faces several changes. First, there is a shift from state-sponsored care systems toward market-driven and customer satisfaction regimes (Buerhaus, Auerbach, & Staiger, 2007; Cooke & Zhan, 2013; Fotaki, 2007; Townsend, Wilkinson, & Bartram, 2011).

In the last 25 years the healthcare system reformed by focussing largely on structural changes, cost containment and the introduction of market mechanisms (Townsend & Wilkinson, 2010) although according to Christensen, Bohmer, and Kenagy (2000) healthcare may be the most entrenched, change-averse industry in the United States.

Despite this potential, HRM in healthcare is underdeveloped and lacking credibility and capacity (Hyde, Harris, Cortvriend, & Boaden, 2009). The health economy is increasingly complex and dynamic (Macfarlane et al., 2009) and hospitals are under pressure to achieve high levels of clinical performance (Townsend, Lawrence, & Wilkinson, 2013). At the same time, they have to cope with a shortage of clinical staff. This is, for example, due to high employee turnover and increased work intensification cause by, for example, the decreasing length of hospitalisation (Chadwick, Hunter, & Walston, 2004). World-wide, there is a shortage of nurses, documented poor doctor and nurse

[4] The CBS considers *rehabilitation centres* part of categorical hospitals (CBS, 2015b).
[5] This was on August 2016 the latest version of this report.

commitment and job satisfaction and continued challenges of quality in patient care and patient safety (Leggat, Bartram, & Stanton, 2011). In the Netherlands, there is a shortage of 1 percent of the practising registered nurse workforce (Simoens, Villeneuve, & Hurst, 2005).

According to Björnberg (2016, p. 4) however, "the European public healthcare industry [is] *nurturing a self-image* of continuous budget-cuts, recruitment problems and patient dissatisfaction" [emphasis added].

Economizing measures by the government and the public visibility of quality and safety incidents pressure healthcare provider organizations to enhance the efficiency and quality of care (Townsend & Wilkinson, 2010).

Dutch hospitals are funded based on the performance they deliver per patient by the Dutch government. This way of reimbursement stimulates hospitals to better perform treatments. The Dutch government expects that by this measurement healthcare remains affordable and that it improves the quality of Dutch healthcare (Dutch Government, 2015).

To increase the absorption of innovations in the Dutch healthcare, the *Ministerie van Volksgezondheid, Welzijn en Sport* (Ministry of Health, Welfare and Sport) raised an innovation platform (Klink, 2009). Although Klink deems it important to bring in a wide range of healthcare innovations, the type of innovations is currently mostly medical-technological. This indicates that HRM innovations are possibly an underexposed domain of Dutch healthcare innovations.

Internationally, there is growing evidence that HRM can make a difference, on the performance of hospitals (Aiken et al., 2001; T. Bartram, Stanton, Leggat, Casimir, & Fraser, 2007; Khatri, Wells, McKune, & Brewer, 2006; West, Guthrie, Dawson, Borrill, & Carter, 2006). For example according to West et al. (2002) there is a clear link between staff working in teams and patient mortality. Empirical results from Boselie, Paauwe, and Richardson (2002), however, suggest that the effect of HRM on firm performance in the highly institutionalised healthcare sector is lower than in less institutionalized sectors.

In recent years, there is a broad consensus that innovation contributes to organizational performance (e.g. Baron & Tang, 2011; Hirst, Knippenberg, & Zhou, 2009; Nadkarni & Herrmann, 2010). To flourish over the long run, most companies need to maintain a variety of innovation efforts (C. A. O'Reilly & Tushman, 2004). Innovations are essential for hospitals to improve the quality of care, and still to save cost over again (NVZ, 2015c).

According to Westert, Van den Berg, Zwakhals, De Jong, and Verkleij (2010), statistics regarding improvements in Dutch hospitals deviate from other countries and there are also variations between Dutch hospitals internally. This suggests a limited diffusion of these improvements and indicates Dutch hospitals do not fully benefit from each other's improvements.

To explore this indication we conducted a preliminary research. Because of its many advantages (less expensive, common standards, infrastructure, globally available, interfacing with households, etc.) internet technology has enabled electronic communication to make the breakthrough (Schubert & Häusler, 2001). We found that all DGHs have a website (overview available upon request). Therefore, we conducted a desk research by searching for HRM innovations in DGHs on their websites (see Appendix A). 84% (59 out of 70) of the websites of DGHs showed HRM innovations; which are often distinctive (see Appendix A).

Therefore, this preliminary research confirms that HRM innovations are probably indeed an underexposed domain of healthcare innovations in the Netherlands.

Michie and West (2004, p. 92) noted that "very few well-conducted studies in the nursing and medical research literatures were focused on issues of work context, people management and employee outcomes." Our review of found papers (see Appendix B) reveal that the research on HRM

innovations in Dutch hospitals is limited. The few papers that do exist in this field, do no cover HRM innovations in Dutch hospitals in general, but only cover certain aspects of it. This gap in existing knowledge is also recognized by scholars. E.g. Van den Broek – van Dongen (2014) researched the HRM innovation process in healthcare organizations. She mentions that the HR function could play an important role in HRM innovation processes but that further research is needed.

Michie and West (2004) recognize that the healthcare systems of countries can be different from each other. This justifies the demarcation of this research to *Dutch* healthcare. Since the healthcare sector is resource intensive (AIHW, 2006), HRM can play an important role in healthcare reform, justifying the focus on *HRM* in healthcare. We assume that each category of hospitals can have its specific characteristics regarding HRM innovations. Therefore we want to study one single category. Since we concluded that general hospitals is the biggest category, we limit ourselves to this category.

Therefore the goal of the research is to find out, within DGHs, what the current situation regarding HRM innovations is. This leads to the research question: *What is the current state of affairs in the field of HRM innovations in Dutch general hospitals?*

From a scientific perspective, the added value of the research is twofold. Literature reveals a wealth of HRM innovations in hospitals in general and in specific countries. There is also an abundance of literature about HRM innovations in hospitals. But at the conjunction of both veins the richness stops. Several researchers ask for further research on this topic, e.g. Van den Broek – van Dongen (2014). Therefore, in general, it contributes to the novel field of HRM innovations. Specifically, it investigates how DGHs can increase their organizational performance by HRM innovations.

From a practical perspective, this research is relevant because healthcare managers can use HRM innovations to cope with e.g. inefficiencies in the healthcare sector (Thakur, Hsu, & Fontenot, 2012) or technological developments (Länsisalmi, Kivimäki, Aalto, & Ruoranen, 2006). Furthermore, it gives DGHs the opportunity to share and learn from each other's HRM innovations to improve organisational outcomes.

This research is organized in the following way: the first chapter gives an overview of the current situation. The next chapter brings the theories of HRM innovations in healthcare and HRM innovations in Dutch hospitals together, ending in a labelled overview. In qualitative interviews, HRM innovations in DGHs are collected and labelled. Both sets are confronted with each other to be able to compare theory with found results.

Summarizing: The healthcare sector faces several changes and challenges. DGHs have distinct characteristics and therefore possibly also distinct challenges. Several initiatives are already taken to face these challenges. HRM innovations is one of the areas that can contribute to an increase of organizational performance. A review of the websites of all DGHs shows that HRM is probably an underexposed domain of healthcare innovations in the Netherlands. There is, however, a knowledge gap in this area so it is not clear what the current state of affairs in the field of HRM innovations in DGHs is. This leads to the research question: *What is the current state of affairs in the field of HRM innovations in Dutch general hospitals?* A clear picture of this current state does not only contribute to theory building. From a practical perspective, this research is relevant because it gives DGHs the opportunity to learn from each other's HRM innovations to improve organisational outcomes.

2. Theoretical Framework of HRM Innovations in a Healthcare Setting

Literature Search

To get a first impression of the existing research, we made an overview of exiting papers in this field (see Appendix B). We used two search engines: Scopus, and Google scholar. Scopus offers powerful features for browsing, searching and sorting functions, while Google scholar uses a different approach to citation services which increased the change of a hit. We used the key words: (a) HRM, (b) innovation, (c) hospital, (d) Dutch. We found and used the following synonyms for these keywords: *HRM*: HR, human resource management*; innovation*: invention, creation; *hospital*: clinic, healthcare facility; *Dutch*: the Netherlands, Holland (Synonym, 2015; Thesaurus, 2015). To further improve the information extraction process, promising papers were summarized on a one page data extraction sheet.

Defining and Categorizing HRM Innovation in DGHs

West (1990, p. 309) defines innovation as: "the intentional introduction and application within a role, group, or organisation, of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, or wider society." Rogers (2003, p. 11) defines innovation as: "An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption." Länsisalmi et al. (2006) broadly define healthcare innovations as new services, new ways of working and/or new technologies. The NVZ (2015b, p. 9) define healthcare innovations more specific as: "an idea, practice or object that can be regarded as new by an individual or other unit that will adopt the innovation". They adopted this definition from: Van Oirschot, Soonieus, Bake, and Kroon (2010, p. 4). Who, at their turn, refer to the definition of Rogers (2003). Therefore, we will use this definition as a basis for our definition.

CBS (2015c) define a general hospital as: "an institution where during day and night all forms of medical specialistic help can take place."

Beer et al. (1984, p. 1) define HRM as "all management decisions and activities that affect the nature of the relationship between the organisation and its employees". HRM literature makes a distinction between the narrow interpretation of HRM of employment practices or the broader interpretation of work practices (Van den Broek – van Dongen, 2014). Since we want to collect a broad spectrum of HRM innovations, we decide to use the broad interpretation.

These definitions and decisions lead to the definition for this thesis: "HRM innovations in DGHs are all management decisions and activities that affect the nature of the relationship between hospitals in the Netherlands where during day and night all forms of medical specialistic help can take place, and its employees, that are perceived as new to the hospital."

There is a difference between an HRM innovation and an HRM practice. An innovation becomes a practice ones adopted by an individual or other unit of adoption and what is an innovation for one unit of adoption, can be a practice for another unit and vice versa (Rogers, 2003). Therefore it cannot always be pinpointed what an HRM practice or what is an HRM innovation is. In case of doubt, we will label it an HRM innovation, again to collect a broad spectrum of HRM innovations.

Several HRM scholars (e.g. Boxall & Macky, 2009; Godard, 2009) categorized HRM related innovations in the pendants: (a) employment innovations, and (b) work innovations. Van den Broek – van Dongen (2014), recognized a third category: (c) organizational innovations.

She defines employment innovations as HRM innovations that are related to more traditional employment issues; e.g. training & development, recruitment & selection, and monitoring employee satisfaction. Work innovations are defined as new practices that are related to the design of work; e.g. task reallocation, manager participating in nursing work, and internal mobility paths. Organizational innovations are defined as innovations with a strong HRM component that fit a

broader category than employment or work innovations; e.g. restructuring programs, cultural change programs, and family centred care. She recognizes that the distinction between these three categories of HRM innovations is not always sharply delineated.

Summarizing: The definition of Rogers (2003) about innovation is most common in healthcare. Combined with the definition of the CBS (2015c) of a general hospital and the definition of Beer et al. (1984) of HRM, we come to our tailored definition: "HRM innovations in DGHs are all management decisions and activities that affect the nature of the relationship between the organisation and its employees that are new to institutions in the Netherlands where during day and night all forms of medical specialistic help can take place."

Van den Broek – van Dongen (2014) categorized HRM innovations in: (a) employment innovations, (b) work innovations, and (c) organizational innovations.

Characteristics of HRM Innovations

Already in the 90s, Bolwijn and Kumpe (1990) recognized the importance of innovations as a safeguard for the continuity of organisations. Innovations can have the form of: (a) product innovation, (b) process innovation, and (c) organisational innovation. In practice, innovations will often be a combination of these forms. A product innovation will often coincide with process innovations and organisational innovations like HRM practices.

Looking at the way organisations innovate, it is nowadays accepted that these HRM practices have a large impact on the innovation processes too. Innovative HRM means that organisations are prepared to look for new ways of dealing with HRM affairs (Looise & Van Riemsdijk, 2004).

HRM Innovations in Healthcare

This section is divided in three subsections reflecting the categorisation of HRM innovations of Van den Broek – van Dongen (2014). All in literature found HRM innovations in healthcare are labelled and serially numbered.

Employment innovations.

Innovation 1: Job rotation to reduce stress and share best practices.

Although the concept of job rotation is not new, information in the literature about job rotation in a healthcare setting is limited. According to Oginska-Bulik (2006, p. 113) "Healthcare professions are regarded as very stressful." Schaufeli and Kompier (2001) conclude that in the Netherlands, job rotation contributes to stress reduction.

The involvement of employees in generating, promoting and applying new ideas is crucial for organizational development, especially in professionalized service contexts where top down control and management are unfeasible (Anand, Gardner, & Morris, 2007; McNulty & Ferlie, 2004).

In a study setting of palliative care organizations, Radaelli, Lettieri, Mura, and Spiller (2014, p. 404) mention that health professionals rotate continuously between home-based and hospice-based care of services to promote sharing of knowledge and best practices. So, best practices are shared by job rotation.

Although the underlying concepts are general, this HRM innovation in healthcare was only found in an Italian research. This indicates that this HRM innovation can be perceived as new to the healthcare sector.

Work innovations.

Innovation 2: Balance hoarding and discarding of task of professionals.

It is a distinctive feature of the care sector that the principal human resource to be managed is the professional (Kessler, Heron, & Dopson, 2015). Abbott (1988, p. 72) stresses the importance of professionals passing on "dangerously routine work" to assistants. But in healthcare specialists tend

to hoard tasks (Kessler et al., 2015). Kessler et al. distinguishes between a specialist expertise, encouraging the profession to discard routine tasks, and a holistic expertise, nurturing the hoarding of tasks. They do not express a preference for either hoarding or its antagonist discarding of tasks of professionals, but HRM should be aware of the distinction so they can make a deliberate balance in the distribution of tasks between professionals and support workers. This balance in the care workforce has important practical implications regarding e.g. the appropriate level of reward for the healthcare assistants (Kessler et al., 2015).

This HRM innovation in healthcare was only found in the UK. This indicates that this HRM innovation can be perceived as new to the healthcare sector. It cuts across another one found in this research: the tripartite HRM model.

Innovation 3: Contextual performance boosting.

Job performance can be broken down in: *task performance* and *contextual performance*. Task performance is focused on the core technical activities involved in a job. Contextual performance is focused on activities outside the core activities such as participating in voluntary committees, co-operating with and helping colleagues, etc. Contextual performance is most times invisible but it contributes to the performance of the organization and has a binding function in the organisation (Van Scotter & Motowidlo, 1996).

Contextual performance can be increased by e.g. citizenship behaviour (Tsui, Pearce, Porter, & Tripoli, 1992). Michie and West (2004) studied contextual performance in health service organisations. They conclude that although traditionally, organizations focus on task performance, an effective organization should consider both task and contextual performance.

Since the paper of Michie and West (2004) was the only one we found about contextual performance boosting in a healthcare setting, this indicates that this HRM innovation can be perceived as new to the healthcare sector. This HRM innovation in healthcare cuts across another one found in this research: organisational citizenship behaviour.

Innovation 4: Create clarity about team leadership in self-managed cross-functional teams.

The use of work teams is both ubiquitous and increasing (Guzzo, 1996), and associated with improvements in organizational efficiency and quality (N. Appelbaum & Batt, 1994). There is a clear link between staff working in teams and patient mortality in hospitals (West et al., 2002). According to Zaccaro, Rittman, and Marks (2001), team leadership, is most critical for success. The team leader brings task expertise, abilities, and attitudes to the team that influence group design and group norms (Hackman, 1992).

Self-managed cross-functional project teams are less likely to be successful if they do not have a leader (Cohen & Bailey, 1997). Organisations often focus on leadership style. This may be premature. Creating clarity about team leadership in self-managed cross-functional teams should come first (West et al., 2003). West et al. recognize that lack of clarity can be a consequence rather than an antecedent of team innovation in their samples of healthcare teams.

This HRM innovation in healthcare was only found in the UK which indicates that this HRM innovation can be perceived as new to the healthcare sector.

Innovation 5: Downsizing by HPWS.

Organizations may downsize to prune an ineffective bureaucracy, lower overhead costs, hasten decision making, smooth communication, increase entrepreneurship, or improve productivity (Cascio, 1993). The overuse and misuse of downsizing in a first response to environmental decline or in the pursuit of short-term, tactical objectives-have been shown to produce lasting deleterious effects on an organization's human resources (Armstrong-Stassen, 1993).

High performance work systems (HPWS) that have the interests of the healthcare employees will likely have a positive impact for all stakeholders. Improving a range of HR outcomes (e.g., job

satisfaction, engagement, retention, and knowledge sharing) will positively affect the quality of care that the organization's employees provide (Cooke & Bartram, 2015; Zhang, Zhu, Dowling, & Bartram, 2013). The literature shows numerous HPWS practices. Yet there is no clear consensus which practices should be included. In some instances these practices identified as innovative are based on the researcher's judgement or preference (Rondeau & Wagar, 2002).

For organizations in the process of being downsized, HPWS practices may increase employee participation, communication, and acceptance of the change strategy and thereby having a mitigating effect on the impact of the downsizing from an employee as well as from an organizational perspective (Rondeau & Wagar, 2002).

This HRM innovation in healthcare was only found in Canadian hospitals which indicates that this HRM innovation can be perceived as new to the healthcare sector.

Innovation 6: Employee direct voice.

Generally, nursing is emotionally and physically demanding. Continuous changes in healthcare organisations, and budget cuts made the workload even more demanding (Duffield & O'Brien-Pallas, 2003). Such conditions may initiate a burnout (Bakker, Le Blanc, & Schaufeli, 2005). There is evidence that burnout is strongly related to organisational and occupational turnover (Firth & Britton, 1989; R. T. Lee & Ashforth, 1996; Leiter & Maslach, 2009). The most widely used definition of burnout comes from Maslach, Jackson, and Leiter (1986), who state that burnout is a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment (P. P. M. Janssen, de Jonge, & Bakker, 1998).

Employee direct voice is a construct linked to employee involvement and participation, and is part of an organisation's HR policies and practices. It is dynamic in nature: management can continually restructure and refocus the relationship between management and individual employees as part of a bundle of HR practices, linked to increasing the effectiveness of the organisation (Tzafrir, Harel, Baruch, & Dolan, 2004). Bryson (2004, p. 240) defines employee direct voice as "two-way communication between management and individual employees without the intermediation of a third party." Holland, Allen, and Cooper (2013) studied the role of employee direct voice in reducing burnout in Australian nurses and came to the conclusion that direct voice has a positive effect on burnout reduction.

This HRM innovation in healthcare was only found in Australia which indicates that this HRM innovation can be perceived as new to the healthcare sector. It cuts across another one found in this research: Job rotation to reduce stress and share best practices.

Innovation 7: Gemba.

Gemba is an element of Lean (Ţenescu & Teodorescu, 2014). Although we recognized Lean as an HRM innovation in healthcare, we decided treat this topic separately because of its distinct features. According to Dombrowski and Mielke (2014, p. 569) "Executives should make decisions based on self-gained facts. This can only happen in the Gemba, the place where the actual work is done."

Mannon (2014) wrote a paper about the introduction of Lean in a healthcare organisation in Wisconsin, with five hospitals and 27 physician clinics in 2003. According to director of quality of this organisation: "Gemba is crucial to managing and maintaining improvements. Gemba allows quality managers to continue to observe performance on existing and past metrics, and identify new opportunities for improvement. The quality manager's role in Gemba is to ask questions of the managers and staff, observe the processes of the unit, and observe audits; quality managers act more as facilitators rather than the lead problem solver at Gemba (Mannon, 2014, p. 9)."

Fine, Golden, Hannam, and Morra (2009) wrote a paper about Lean in Canadian healthcare organisations. The hospital staff had to create a value stream map to learn more about their

processes. They had to: " 'walk the line' (Gemba) from the perspective of the patient, observing the activities that are required to deliver care (Fine et al., 2009, p. 35)."

(Jenkins & Gisler, 2012) conducted a case study in a central Baptist hospital in the US. A multidisciplinary team that included administrative leaders and clinicians used Gemba techniques to witness first-hand the roadblocks that could be encountered and to experience the system through the eyes of the patient. "The team ended the walks feeling more empathetic with an increased commitment to produce real results (Jenkins & Gisler, 2012, p. 41)."

This HRM innovation in healthcare was found in several counties which indicates that this HRM innovation is only partly diffused in the healthcare sector. It has strong links with another one found in this research: Lean.

Innovation 8: Hybrid clinical managers as main driver of HRM innovations.

There are several actors with competing agendas involved in and changing work practices (McBride & Mustchin, 2013). These actors try for example to gain advantage through regulation (Hancher & Moran, 1989). In the UK the state tried to limit the power of clinicians and trade unions to allow managers "to manage" (McNulty & Ferlie, 2002, p. 59), but the managers acknowledge that clinicians remain the key stakeholder who can block or adapt change (McNulty & Ferlie, 2002). The clinicians do work with managers and play an active role in labour substitution (Hyde, McBride, Young, & Walshe, 2005) but their involvement is dismissed by management as professional resistance (McNulty & Ferlie, 2002).

Case studies, however, indicate that clinicians are primarily involved in changing work practices to maintain clinical services, rather than taking positions of professional resistance (McBride & Mustchin, 2013). The processes of task delegation and work reorganisation are highly technical. Therefore clinicians took the lead in this (McBride & Mustchin, 2013). HRM rely "on coalitions of enthusiastic clinicians and others who continue to invest time in changing work practices despite government expressions of suspicion of their motivations" (McBride & Mustchin, 2013, p. 3143).

Llewellyn (2001) named them "hybrid" clinical managers: clinicians who perform both clinical and managerial roles like a clinical nurse manager, or a clinical director. This HRM innovation in healthcare was found in several countries which indicates that this HRM innovation is only partly diffused in the healthcare sector.

McCaskey (1988) critiques on the double role that is required for these clinicians and names this "Janusian thinking" which is the ability to constructively join two sets of traditionally opposed ideas. He doubts that every clinician can assume this double role.

Innovation 9: Lean.

According to Holden (2011, p. 265). "Lean thinking is a bundle of concepts, methods, and tools derived from the Toyota Production System, the production philosophy of Toyota Motor Corporation." Lean thinking started with Taiichi (1988) from Toyota in the 1950s and was further developed by Womack and Jones (1996).

Lean has been increasingly adapted and adopted in healthcare. Organizations such as the Institute for Healthcare Improvement and the NHS Confederation and the Institution for Innovation and Improvement, advocated the use of Lean in 2005–2007 (D'Andreamatteo, Ianni, & Lega, 2015). An obvious application to healthcare lies in minimising or eliminating delay, repeated encounters, errors, and inappropriate procedures. Since the handling of patients is more complex than the handling of products, the implementation of Lean is more difficult. To be successful, all stakeholders must be participating in the improvement process. Most radically, this might include the patients themselves. (T. Young et al., 2004).

This HRM innovation is widely diffused in healthcare, however, in different forms. Some of these specific forms can be perceived as new to the healthcare sector. It has strong links with another one found in this research: Gemba, which is an element of Lean.

Innovation 10: Limit paid hours to face-to-face contact time.

Domiciliary care work is often high commitment work with fragmented time systems (Rubery, Grimshaw, Hebson, & Ugarte, 2015) and much of this fragmented-time work is part-time (Blyton & Jenkins, 2012). Fragmented time systems of employment organization require more commitment from staff than the full-time flexible hours typical of high-commitment management systems (Rubery et al., 2015).

High-commitment work arrangements rely on self-discipline and internalized motivations (Casperz, 2006). The fact that care work attracts employees with altruistic motives (Mittal, Rosen, & Leana, 2009) and that the predominantly female labour force has limited individual bargaining power (Palmer & Eveline, 2012), frees the way to the following HRM innovation: Limit paid hours to face-to-face contact time, leaving travel time and other work-related activities unpaid (Rubery et al., 2015).

This HRM innovation in healthcare was only found in the UK which indicates that this HRM innovation can be perceived as new to the healthcare sector. We regard it as a form of Lean although not how it was originally intended by Ohno (1988).

Innovation 11: Serious gaming.

M. F. Young et al. (2012) referenced Klopfer et al. (2009, p. 21) to define serious games as those that "target the acquisition of knowledge as its own end and foster habits of mind and understanding that are generally useful or useful within an academic context." According to Allal-Chérif and Makhlouf (2016, p. 29) "serious games are interactive video games whose objective is to teach best practices and knowledge, regardless of the sponsor."

Serious games are used in various sectors, including car industry, defence, aeronautics, pharmaceuticals, banking, media and healthcare and enable new modes of recruitment, training, evaluation and management based on virtualization and enhanced reality (Allal-Chérif, 2014). Due to its practical nature, we present some examples of serious gaming in healthcare, rather than an elaborate theoretical background.

Traditionally triage is taught in small practical workshops, with an instructor and with mannequins or live models placed in a classroom setting. This limits the lifelike of the training and the lead time. The introduction of game elements within simulations, to produce serious games (games used for non-leisure purposes), increased the lifelike and maximum group size and reduces the duration of the training. The participants learn by playing and experimenting which strategies are successful and which are not. In England, a test with the software Triage Trainer, developed by TruSim[6], on a computer demonstrated that this tool was more effective than the traditional practical workshop (Knight et al., 2010). Gamers who discussed their gaming experiences outperformed those who didn't (Ulicsak & Wright, 2010).

There are also several practical examples of serious gaming in Dutch healthcare: In the Academic medical centre in Amsterdam, anaesthesiologist in training can practice their skills on airway management with a serious game. In a web application the players see pictures with specific cases. They have to take a decision while time ticks away and good decisions are rewarded with extra time. According to the developer, serious gaming suits the new generation of students. Furthermore, the development of the software is quicker and cheaper and the development of a traditional simulation. The developer is working on a version for a smartphone (Zorg voor innoveren, 2016a).

[6] Division of Blitz Games Studios. See www.trusim.com.

Serious gaming is not always played on a computer. Commissioned by the Netherlands Organization for Health Research and Development, *ZonMw*, a board game is designed to help social district teams to collaborate around a client (Zorg voor innoveren, 2016b). The board game, named Tokkie tokkie, is based on an intervention model and learns the gamers how they should adapt team factors like leadership, trust, time pressure and professional boundaries to a continuously chancing environment. This dynamic aspect cannot be realized in the traditional learning environments (ZonMw, 2016).

This HRM innovation is already widely diffused in different forms in healthcare. The practical examples, however, suggest that the concept of serious gaming is still in its infancy and can therefore be perceived as new to the healthcare sector.

Organizational innovations.

Innovation 12: Big Data.

HRM involves a lot of quantitative data and quantitative information (H. Liu, Fu, Wang, & Fang, 2014). The digital revolution in healthcare is now and the amount of data is exploding and continues to evolve in healthcare (Issa, Byers, & Dakshanamurthy, 2014). At the same time there is a shortage of reliable information. Big Data can fill this void partly (Ottes, 2016) and will become key to new healthcare innovations (Issa et al., 2014). The term Big Data, coined by Roger Magoulasis (Barman, n.d.)[7], is often synonymized with "a huge amount of data" but the term covers more and Ottes (p. 9) defines Big Data as "a development in which large amounts of data from various data sources, are related to each other to search for patterns without prior hypotheses. The data often come from different areas and are used for purposes other than for which it was originally collected." An advantage of Big Data is that a computer, in contrast to humans, is not hindered by biases like e.g. anchoring or confirmation bias.

Potential benefits are, amongst others, detecting diseases at earlier stages, detecting healthcare fraud more quickly and efficiently, and estimating the length of stay of patients more precisely (Raghupathi & Raghupathi, 2014).

Big Data can be combined with the Internet of Things (IoT). At this moment it's practical application is limited to lifestyle gadgets that measure for example physical exercise and heartrate. Another application is the data mining in personal files of employees which are now largely digitalized (Ottes, 2016).

Big Data also has its limitations. Big Data can only be used to find correlation but not causal relations and improper use can lead to incorrect results. The use of Big Data also makes it difficult to guarantee anonymity: by linking data sets, anonymised data can often be de-anonymized again. Data from paper that was digitalized is often captured as free text that is difficult for computer software to interpreted (Ottes, 2016).

This HRM innovation in healthcare is in the literature more described in the form of its potential and its limitations, than in its practical applications and can therefore be perceived as new to the healthcare sector.

Innovation 13: Enhancement of patient satisfaction by improving employees' HRM system perception.

Research of service industries demonstrated that all employees contribute towards a shared service climate in an organisation (Von Wangenheim, Evanschitzky, & Wunderlich, 2007). They perceive and interpret HR practices subjectively, leading to attitudinal and, in turn, behavioural HR outcomes (Wright & Niishi, 2006).

[7] Only draft version available.

There is a positive relationship between employees' HR system perceptions and patient satisfaction (Baluch, Salge, & Piening, 2013). Baluch et al. (2013, p. 3038) results suggest "that this relationship is mediated by employees' civility towards patients, that is, by the extent to which employees treat patients with courtesy, dignity and respect." They suggest to implement HR practices that are perceived positively by employees and that HRM managers of hospitals should invest in a sophisticated HR system that focuses on employee involvement and communication.

This HRM innovation in healthcare was only found in the UK which indicates that this HRM innovation can be perceived as new to the healthcare sector.

Innovation 14: Innovative work behaviour by knowledge sharing.

Innovative work behaviour (IWB) denotes the intentional creation, introduction and application of new ideas that benefit work-role, group or organizational performance (De Jong & Den Hartog, 2010; O. Janssen, 2000; Scott & Bruce, 1994). Organizations that stimulate knowledge sharing within and outside the organizational boundaries are more likely to develop innovations and improve their performance (Howell & Annansingh, 2013; Y. Liu & Phillips, 2011; Zhou & Li, 2012).

The introduction of this paper stipulated that innovation is important for the healthcare sector. Radaelli et al. (2014) studied IWB in a healthcare setting. Their study reveal a direct, unmediated link between knowledge sharing behaviours and IWB.

To embed this innovation in the organisation, during idea application, the employees have to co-ordinate and integrate different sets of knowledge with other employees or teams (Tucker, Nembhard, & Edmondson, 2007).

This HRM innovation was only found in healthcare in Canada and the US which indicates that this HRM innovation can be perceived as new to the healthcare sector.

Innovation 15: Organisational citizenship behaviour.

Podsakoff, MacKenzie, Paine, and Bachrach (2000) define organisational citizenship behaviour (OCB) as the extra discretionary advantageous, tangible and intangible activities and behaviours that are a result of effective workplace relationships. (Carmeli, Meitar, & Weisberg, 2006) define innovative behaviour as a process that involves employees identifying a problem, creating possible solutions for the problem and creating support for the solutions.

Nursing employees, who are committed to the organisation will be more likely to be innovative in the workplace and OCB increases innovative behaviour of nursing employees (Xerri & Brunetto, 2013). Hospitals can capitalize on innovative nursing employees since they will contribute to organisational goals (Reuvers, Van Engen, Vinkenburg, & Wilson-Evered, 2008). There is a downside: OCB and innovative behaviour often require employees to do extra work on top of their current workload (Chang & Chang, 2010).

This HRM innovation in healthcare was only found in Australia which indicates that this HRM innovation can be perceived as new to the healthcare sector. It is closely related to the HRM innovation: stimulation of pro-social organisational behaviour.

Innovation 16: Stimulation of pro-social organisational behaviour.

Pro-social organisational behaviour (PSOB) "is behaviour which is (a) performed by a member of an organization, (b) directed toward an individual, group, or organisation with whom he or she interacts while carrying out his or her organizational role, and (c) performed with the intention of promoting the welfare of the individual, group, or organization toward which it is directed" (Brief & Motowidlo, 1986, p. 711). PSOB is part of the element "motivation" in the ability-motivation-opportunity (AMO) framework of (Boxall & Purcell, 2003). It is especially in healthcare organisations important because in this environment delivery often depends on the spontaneous actions of employees as they co-produce services with the patient (Hyde, Harris, & Boaden, 2013).

A developed understanding of PSOB is important to HR managers because of the potential to enhance organisational performance (H. J. Lee, 2001). Rioux and Penner (2001) suggest that PSOB is a reaction to the job or the organisation implying an important role for HRM. Therefore Hyde et al. (2013, p. 3126) recognize that there is "a need for value-driven HRM that would resonate with the altruism and conscientiousness of organisational members and militate against the potential for overwork and burnout."

This HRM innovation in healthcare was found in several countries which indicates that this HRM innovation is only partly diffused in the healthcare sector, and is closely related to the HRM innovation: organisational citizenship behaviour.

Innovation 17: Tripartite HRM model.

The operational responsibility for HRM is typically passed from HRM practitioners to line managers. This practice is known as "devolution" (Larsen & Brewster, 2003). In healthcare, the proficiency of professionals requires line managers to have legitimacy and expert knowledge to understanding to manage the professionals (Raelin, 2011). Senior professionals do have expert knowledge, judgment, and credibility (McDermott et al., 2015).

In a tripartite HRM model three actors cooperate: (a) HRM practitioners, (b) line managers, and (c) senior professionals (managers and specialists) (McDermott et al., 2015). McDermott et al. (2015, p. 3) define senior professionals as "professional managers such as the director of nursing, medical director, and specialists such as consultants and occupational physicians."

In the hospital context all "In the tripartite relationship, each party has scope to contribute to people management: HR practitioners to formulate a strategic framework, HR practices, and provide advisory services; line managers to implement HR practices and interface between HR and frontline professionals; and senior professionals to act as line managers' advocates and provide expert knowledge and credibility to inform people-related decision making" (McDermott et al., 2015, p. 1).

This HRM innovation in healthcare was found Ireland, the Netherlands, and the UK which indicates that this HRM innovation is only partly diffused in the healthcare sector.

Summarizing: The literature review of HRM innovations in healthcare yielded a diverse spectrum of 17 HRM innovations in all three categories as defined by Van den Broek – van Dongen (2014). Most of the HRM innovations in healthcare are found in a specific setting or in a specific country, meaning that it is uncertain if they, *mutatis mutandis*, can be applied to the situation in the Netherlands. Only one HRM innovations in healthcare was found in the Netherlands.

Some of the HRM innovations cuts across others. For example *Lean* and *Gemba* are closely related but still distinct. Others, like *organisational citizenship behaviour* and *pro-social organisational behaviour* are less distinct. While most of the HRM innovations are concrete and literature is larded with several examples, like *serious gaming*, others, like *Big Data*, are more conceptual.

HRM Innovations in Dutch Hospitals

Dimaggio and Powell (1983) distinguish three institutional mechanisms that can influence decision-making in organizations: (a) coercive mechanisms, (b) mimetic mechanisms, and (c) normative mechanisms. In the Dutch context, coercive mechanisms include the influence of social partners (the trade unions and works councils), labour legislation and government (Boselie, Paauwe, & Jansen, 2001). This results in a variety of exogenous influences that restrict management's manoeuvrability (Kluytmans, 1999; Ten Have, 1993). These coercive mechanisms shapes HRM in Dutch organizations and through a proactive and innovative attitude towards this context, some organizations gain a competitive advantage (Boselie et al., 2001).

Following (Mirvis, 1997), these organizations can be labelled "leaders" (i.e. HR innovators), in contrast to "laggards" who are unable to cope with this context.

"Culture is the collective programming of the mind that distinguishes the members of one group or category of people from others" (Hofstede, 2011, p. 3). Selecting countries as a group, Hofstede recognizes the Netherlands as a country with a low masculine worldwide on the masculinity versus femininity index. The Netherlands furthermore score high on the individualism versus collectivism index.

Nakata and Sivakurnar (1996) found that a high femininity, would have a positive effect on the initiation stage of an innovation, whereas a high masculinity would help in the implementation stage.

Taylor and Wilson (2012) found that individualism has a strong, and positive effect on both scientific progress and technological innovation.

Waarts and Van Everdingen (2005) state that national culture also has an influence on the adoption status of innovations. Cultural differences between countries, even within the EU (European Union), are still so large that they impact the likelihood of adoption by companies operating in different countries. Within Europe, the adoption rates of innovations in the Netherlands are above average.

These finding suggest that the Netherlands offer a unique landscape where HRM innovations can thrive.

Employees in the Dutch health & social welfare sector have distinct characteristics: The average educational level of staff is slightly higher than that of the average Dutch employee. There are more female than male nursing staff, and more males have positions in medicine or social sciences. Proportionally speaking, more staff in the 55 years and older work in non-patient-oriented roles. Medical and social sciences staff are relatively young. Nursing staff are the most stable group: they remain on average, with the same employer for over 13 years (NVZ, 2015b).

In the Dutch healthcare, for the past twenty years, tasks were relocated and there was a shifting of tasks from physicians to other care providers. This resulted, for example, in wide range of specialised nurses with the introduction of the new function of nurse practitioner in 1997 perhaps as the most known example (NVZ, 2015b).

In 2014, six mergers have taken place among the DGHs which resulted in a decrease of the number of DGHs. However, the number of locations at which hospital care is provided is increasing as there are now more hospitals with several key locations on the one hand, and the number of satellite outpatient clinics is increasing on the other hand (NVZ, 2015b). Furthermore, in rural areas there are increasing tendencies towards mergers, resulting in an uneven spread of facilities for acute healthcare (Westert et al., 2010).

The NVZ dedicated their branch report of 2014 to “Innovating Health Care”, indicating that they consider this an important topic. They recognize that innovation is a broad concept (NVZ, 2015b).

Summarizing: HRM in Dutch organizations is shaped by coercive mechanisms and an innovative attitude towards this mechanisms and a shared ideology between the involved parties can lead to a competitive advantage. Regarding cultural differences, the Netherlands score high on femininity and individualism. A high femininity can have a positive effect on the initiation stage of an innovation and individualism has a positive effect on both scientific progress and technological innovation. Within Europe, the adoption rates of innovations in the Netherlands are above average.

Although the number of employees is slowing down, the staff is increasing. Their employees have distinct characteristics. The trend is towards a shift of work from highly educated employees to lower educated employees and an increase in specialization. Another trend is towards mergers, creating large hospitals with satellite clinics around it.

These findings suggest that Dutch healthcare employees have distinct characteristics and that the Netherlands offer a unique landscape where HRM innovations can thrive.

3. Research Design

We preferred a qualitative over a quantitative research method since we look for HRM innovations in DGHs, not yet mentioned in the literature. We took an inductive stance to collect a wide spectrum of these HRM innovations. Since we want to know about the current state of affairs regarding HRM innovations in DGHs, we chose for a cross-sectional study.

"In qualitative research, the relevant data derive from four field-based activities: interviewing, observing, collecting and examining (materials), and feeling … Feelings, as represented by multiple senses not limited to the sense of touch, can involve the noise, temporal pace, and warmth/coldness of a field setting, as well as conjectures about the social relationships among participants." (Yin, 2011, p. 129). We assumed that HRM personnel are aware of the HRM innovations within their organisation, and we assumed that feelings have a minimal of not at all impact on HRM innovations. This made the activities *observing* and *feeling* less useful so the activities *literature review* and *conducting interviews* remained.

Categorisation of HRM Innovations

The section *Defining and Categorizing HRM Innovation in DGHs* described the categorisation of HRM innovations conform Van den Broek – van Dongen (2014). Figure 2 visualizes this categorisation. The categorisation is used to structure: the literature review, the collected data, and the data analysis. The overlap of the different sets reflects that an HRM innovation does not always belong strictly to one single category (Van den Broek – van Dongen).

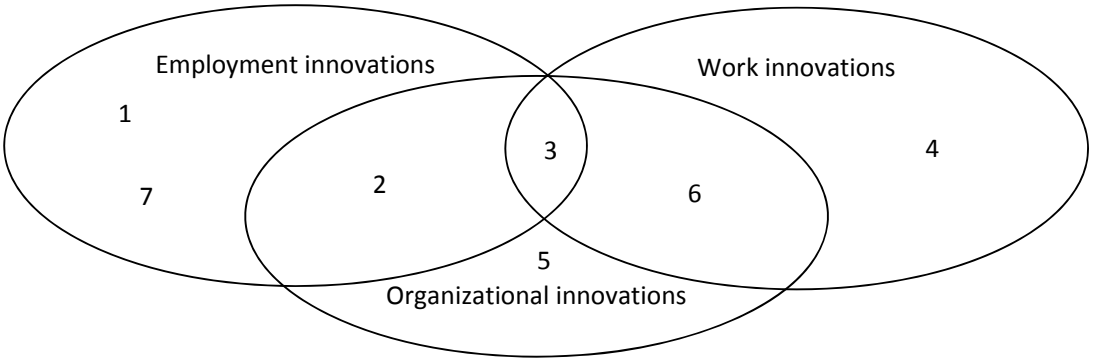


Figure 2. Theoretical Categorisation of HRM Innovations in DGHs.
The numbers in the sets and subsets serve as an example and represent the HRM innovations that can originate from theory as well as from practice.

Literature Review

"although a [literature] review of prior research could help to inform a new study, such a review also could hinder if not bias it by creating an unwanted filter or lens." (Yin, 2011, p. 61). Still, we decided to perform a literature review to deepen our mastery over the literature and to find HRM innovations in a healthcare context. Identified HRM innovations are serially numbers to be able to confront them with the HRM innovations found during the open interviews.

Preliminarily Research

To get a first impression of the current state of affairs in the field of HRM innovations in DGHs, we analysed the HRM part of the websites of all DGHs. Almost all of them have a section "working and learning" and a section "about us". Therefore we systematically searched the websites by looking first at these sections. Most of the websites have a search function. We use this function to search on the key words "HRM", "HR" and "*personeel*" (personnel). We found additional information during this search process. Some DGHs published their annual reports on their sites and we used the same

key words to gopher through these documents to find additional information. We labelled all found HRM innovations and categorized them according Van den Broek – van Dongen (2014). The information gained in the preliminary research is part of the findings and is used to prepare for the qualitative interviews of the DGHs.

DGH Selection, Contacting, and Response

One researcher made the initial list of DGHs (N=83) based on information derived from the website Ziekenhuis.nl (2016). Another researcher validated this list which resulted in another 7 DGHs (N=90). It was not always clear to if a DGH must be seen as an independent entity or must be seen as a part of a larger organisation. This might explain this difference. Since we are conducting a case study, we consider the impact of this difference on the results acceptable. A number of the DGHs are located in multiple cities. Since they are part of the same organization, we assume that they (partly) share the same HRM innovations. Therefore, we included only the largest location of each of these DGHs in our sample (n=84).

In qualitative research, there is no formula for defining the desired number of data collection units to be included in a study (Yin, 2011). But the selection of units should seek to "obtain the broadest range of information and perspectives on the subject of study" (Kuzel, 1992, p. 37). Since this is an explorative study, we wanted a high number of units and therefore decided to approach the whole sample.

To contact HRM departments of DGHs, we looked at the websites of the DGHs for contact information. Hits were recorded in an overview of DGHs (available upon request). On most of the websites of these DGH, we found only general contact information (general telephone number and general post address). To increase the change of being invited, we contacted these DGHs by their general telephone number, explained our situation and asked for the correct contact information. This resulted in an overview with contact information (available upon request).

We have several options of requesting participation; e.g. by: email, telephone, or post. Since emails suffer from spam, according to Kopytoff (2004) almost 40% in the United States in 2004, we discarded this option. We also discarded requesting by telephone due to its volatility of information, leaving post as our preferred option. We wrote a *participation request letter* in English and Dutch (see Appendix D) to all DGHs in our sample. This letter covers, among other items, the following: (a) The purpose and goal of the research are explained, to enable the HRM personnel to select the most suitable person to be the interviewee. (b) To assure that all interviewees have the same perception about what an HRM innovation in a DGH is, and to ease the communication between interviewer and interviewee, our definition of an HRM innovation in a DGH is mentioned. (c) To increase interviewee involvement, we offer to share the results of the research with them. (d) Guenther (2009), mentions that researchers should be aware of how to handle confidentiality, not only regarding people's names but also the names of organizations and places. Therefore, we mention that the names of the interviewees, their organizations and places will not be mentioned in the report. (e) We will mention that we will voice record the conversation to give potential interviewee the opportunity to considerer this point in advance. (f) To give the interviewee the opportunity to plan the qualitative interview, we will mention the expected duration.

None of the DGHs responded to our letters. Therefore we called them and we asked: (a) if they received our letter, (b) if they are interested in an interview. Out of the 84 DGHs, 9 could recall receiving the letter, 62 could not, and for the remaining 13 we have no data. 10 DGHs were willing to participate in an interview. At the end of each interview, we asked the interviewee if he could help us to get more interviews. This yielded one DGH who, however, had already committed to our research. Networking by all researchers individually yielded also one more participating DGH. One DGH withdrew. This brings the total response to 10 DGHs. Baruch and Holtom (2008), found an average

response rate for studies that utilized data collected from organizations of 35.7 percent with a standard deviation of 18.8 between 2000 and 2005. The actual response rate of 11.9 percent (10 respondents out of 84 contacted DGHs) was significantly below the expected response rate. We have no explanation for this deviation.

Data Collection and Storage

To collect data, we formed a field team consisting of all three members of the research team.

#	Bed[a]	HSMR[b]	Q[c]	Function interviewee
1	180	-	8.5	Ad interim head of PO&O
2	630	110	7.4	Director with P&O portfolio
3	350	10	8.3	Head of P&O
4	510	110	7.3	Manager HRM
5	390	90	7.8	Chief of personnel department
6	350	100	8.4	HRM manager of hospital
7	300	80	7.8	Manager PO&O
8	1000	120	8.3	Department head HRM
9	650	90	6.1	Department head HRM
10	1070	100	6.4	Department head HRM

Figure 3. Distribution of DGHs where an Open Interview is Conducted with Key Figures.
The map of the Netherlands shows the distribution of the DGHs were an interview is conducted. The places are in: (a) regular, (b) *italic,* and (c) **bold** to show the distribution of conducted interviews by the three reviewers. [a]The number of beds (Ministerie van Volksgezondheid Welzijn en Sport, 2014) are rounded off to the nearest hundred. [b]Hospital Standardised Mortality Ratio[8] (Keesman, 2013), rounded off to dozens to guarantee anonymity. [c]Perceived quality by patients on a scale of 1 (low) up to and including 10 (high) at one decimal place. Collected by the *Nederlandse Patiënten en Consumenten Federatie* (NPCF) (Dutch Patients and Consumers Federation) (NPCF, 2015).

Figure 3 shows that the distribution of participating DGHs is roughly even with a cluster of three DGHs in the province of Gelderland. The distribution of researchers is roughly even over the country.

Miles and Huberman (1994) recognize the pitfall that if a researcher only interviews certain people of high status (key informants), they could fail to gain an understanding of the broader situation. Therefore we decided that any HRM employee is a potential interviewee.

It is important to choose a locale for conducting interviews which are quiet, safe, and non-threatening (Jacob & Furgerson, 2012). Therefore we choose the DGHs as the best venue to conduct the qualitative interviews.

"Qualitative interviews are mentally exhausting" (Yin, 2011, p. 135). To ensure that the quality of the interviews is not compromised, we decided to limit ourselves to a maximum of one interviews a day. "Interviews can take many forms, but for the sake of argument you may consider all of the

[8] "Hospital mortality can be measured as the ratio of the number of hospital deaths to the number of hospital admissions (hospital stays) in the same period" (Van der Laan, De Bruin, Van den Akker-Ploemacher, Penning, & Pijpers, 2015, p. 3).

forms to fall into either of two types: structured interviews and qualitative" (Yin, 2011, p. 132). Structured interviews with closed-ended questions lead to more accurate data and a more definitive analysis (Fowler & Cosenza, 2009). To answer the research question however, we need to uncloak not yet described HRM innovations for which qualitative interviews are more appropriate.

It would be optimal if we could conduct the interviews until the point that we feel that we have reached the point of information saturation (Fusch & Ness, 2015). However, at the convenience of the interviewee, we decided to work with a fixed duration. "Asking someone to devote more than an hour and half of their time can become problematic for several reasons" (Jacob & Furgerson, 2012, p. 5). Therefore we limited the duration of the interview to an hour.

To give the qualitative interview direction, we wrote an *interview protocol* (see Appendix C). The interview protocol, produces a "guided conversation" (Rubin & Rubin, 1995). (Yin, 2011) advices to learn the interview protocol by heart, were Rubin and Rubin advices to use it as a "prop" to show the interviewee that we are well prepared. We decided to follow Rubin and Rubin because we will use the interview protocol also to make notes. Following Yin, we wrote the protocol as a stated set of topics, in a grammatical voice that direct questions to the interviewer.

Although qualitative researchers generally rely on face-to-face interviewing when conducting in-depth interviews, Sturges and Hanrahan (2004) suggests that telephone interviewing also can be used successfully in qualitative projects. But since their results were retrieved under specific conditions, we decided to rely on face-to-face interviewing.

For using recording devices of any sort, requires you to obtain the permission of those who are to be recorded (Yin, 2011, p. 171). Although the use of voice recording is already mentioned in the participation request letter, we will request permission before starting the interview but after starting the memo recorder to have evidence of their permission. A telephone ringing can not only be embarrassing, but it can also "changing the mood of the entire interview" (Rowe, 1999, p. 9). Therefore we will ostentatiously turn off our telephone and will ask the interviewee to do the same.

At the start of the interview, we mention the date and pseudonym for the DGH to be able to uniquely identify the voice recording. Especially the first question of the interview is important (Yin, 2011). Spradley (1979) recommends to start with a "grand tour question". We derived the other topics from the literature research. To slowly build confidence and trust with the interviewee, following Jacob and Furgerson (2012), we arranged the questions in order from those that are least difficult or contentious to those that are most difficult by discussion and reaching consensus (see Appendix C).

(Yin, 2011), recommends to be well prepared before conducting an interview. Part of this preparation is testing the interview protocol. The protocol is tested within the research team by interviewing each other. To be sure not to forget any equipment, we made a list of equipment: (a) *memo recorder with spare batteries*. to record the conversation, (b) *interview protocol*, (c) *pen, spare pen and notebook*, to make notes, (d) *contact information interviewee*, for eventualities, and (e) *clock*, to keep track of the maximum interview duration.

Training is important in site visit research, since the researchers are the main research instrument (Yin, 2011). Involving multiple persons calls for additional team-building efforts. For instance, common training and preparation are needed to increase the consistency of fieldwork (Yin, 2011). Furthermore, "qualitative interviewing requires intense listening … and a systematic effort to really hear and understand what people tell you" (Rubin & Rubin, 1995, p. 17). We formed a coherent team by meeting regularly, discussing all kinds of topics. We also held a training session with our mentor to practice conducting qualitative interviews and get ourselves acquainted with necessary equipment.

The research is conducted in the Netherlands but the report is written in English. To avoid possible translational errors, the interviews are preferably conducted in English. If the interviewee however prefers Dutch, then the interview is conducted in Dutch because otherwise the quality of

the interview might be compromised. Dutch interviews are printed in two columns, one for English and one for Dutch.

To assure that the used research data is at all times retrievable and verifiable, the interview transcriptions are stored in the DANS-database (Data Archiving and Networked Services, 2016).

Data Processing and Structuring

We processed the data by transcribing the voice recordings. One could go beyond analysing the spoken words and examine the nonverbal portions of the conversation, including people's tone of voice, pauses, interruptions of each other, and other mannerisms (Drew, 2009). Since we are looking for information, not emotions, we will ignore this aspect in the transcription. Since in nearly every study, participant anonymity, together with the use of pseudonyms, is the option of choice (Yin, 2011), we decided not to deviate from this practice and deleted the voice recordings after transcription. The transcriptions are only identified by their date and serial number and are available upon request. We paraphrased and summarized the raw transcriptions in coherent anonymous interview reports. These interview reports were sent to the interviewees for correction and to proof anonymity. The received corrections were processed. The corrected interview reports were used to derive the HRM innovations.

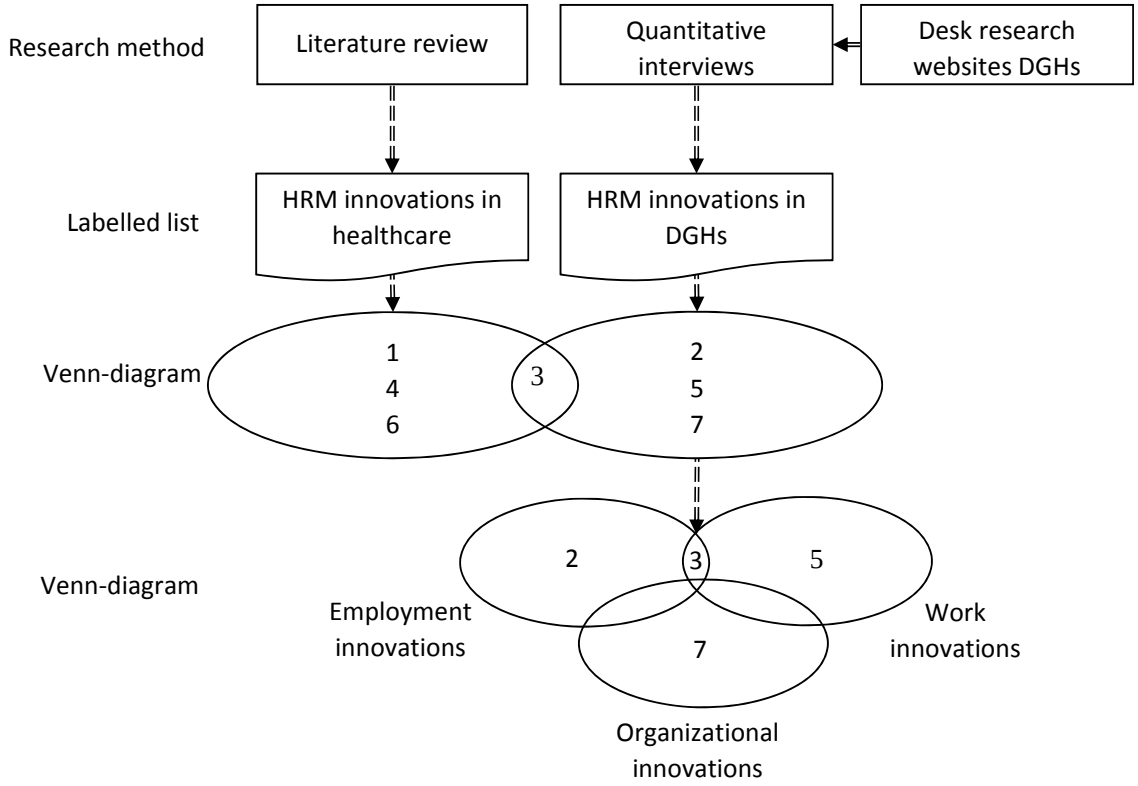


Figure 4. Information Processing Model.

The numbers in the Venn-diagrams represent the serially numbered HRM innovations and serve as an example.

Figure 4 depicts how the literature review and the quantitative interviews are summarized in labelled lists. A Venn-diagram shows the intersection of both sets of HRM innovations.

Data Analysis

Data analysis by using Computer Assisted Qualitative Data Analysis Software (CAQDAS) has its advantages and disadvantages (Yin, 2011). We assumed that the added value of automated structuring of labels and disassembling process do not outweigh the disadvantage of learning the

software program and the possible distraction of the software from the actual analysis and decided to code manually.

Following (Yin, 2011), we coded our data to begin moving methodically to a higher conceptual level and to avoid non-systematic and inconsistent judgments. Hahn (2008) distinguishes four levels of coding. Since our number of HRM is limited, we deemed two levels of coding sufficient. We tagged the first order coding *labels* and the second order coding *sub-labels*. We found no literature with a predefined set of labels for HRM innovations and therefore constructed our own set of labels. We set ourselves a limit of 10 labels to assure a clear distinction between labels and sub-labels. We derived our labels individually from the one page data extraction sheets and compared these lists to come to a consensus (see Table 1). Note that we found only one label in the category "Organisational innovations".

Table 1
Categorised Labels

Category of HRM innovation		
Employment innovation	Work innovation	Organizational innovation
Learning[a]	Communication	Culture[d]
Recruitment	Efficiency	
Talent management[b]	Sharing	
	Working conditions[c]	

[a]"The development of insights, knowledge, and associations between past actions, the effectiveness of those actions, and future actions" (Fiol & Lyles, 1985, p. 811).
[b]"In the broadest possible terms, TM is the strategic management of the flow of talent through an organisation. Its purpose is to assure that a supply of talent is available to align the right people with the right jobs at the right time based on strategic business objectives" (Iles et al., 2010, p. 12).
[c]"In job evaluation literature, working conditions imply two dimensions: environmental conditions and hazards." (Kahya, 2007, p. 517).
[d]"regularities in the behaviour, internal and external, of the members of a society, excluding those regularities which are purely hereditary." (Akerlof, 1976, p. 600).
Note. Categorisation of HRM innovations conform Van den Broek – van Dongen (2014).

We decided to accept an HRM innovation only if it was elaborated on and/or if it was applied at the GDH to avoid that "just" mentioning a term would pollute our set of HRM innovations.
Hall (2000) advices to perform reliability checks. For example, by having two or more viewers make their own coding. We performed an inter-rater reliability test by providing an external reviewer with a business administration background: (a) the definitions of the categories of HRM innovations, (b) the table with the categorisation of labels (see Table 1), and (c) three randomly selected interview reports. The external reviewer was given the task: "Identify the HRM innovations in the interview reports and name them. Attach a label from the table to this name." Appendix P compares the results of the external reviewer with our results. The external reviewer found 27 HRM innovations, we found 12 HRM innovations. 8 HRM innovations were in common and 4 of them had the same coding. We discussed the fact that the external reviewer found more than twice as much HRM innovations as we did (27 versus 12) with him and found a possible explanation for this difference: The external reviewer considered an item an HRM innovation if it was mentioned, while we used the criterion that the item must be elaborated on. Two-thirds of the by us found HRM innovations and half of the labels were in common with those of the external reviewer. These two results are an indication that the reproducibility of the coding is limited.

The data analysis ends with a categorized, labelled, and sub-labelled overview of found HRM innovations in DGHs to be able to compare them with the theory (see Table 3). Each interview report ends with the focus of the HRM department concerned to be able to compare the foci.

To gain insight of which HRM innovations from literature are not used in DGHs and which HRM innovations are used in DGHs but not mentioned in the literature, we made a Venn diagram. This diagram contains: (a) the set of HRM innovations from literature, (b) the set of HRM innovations found in DGHs and, (c) their intersection (see Appendix Q).

According to our definition: "HRM innovations in DGHs are all management decisions and activities that affect the nature of the relationship between hospitals in the Netherlands where during day and night all forms of medical specialistic help can take place, and its employees, that are perceived as new to the hospital." We derived the following acceptance criteria from this definition: Is the potential innovation: (a) HRM related? (b) Applicable to general hospitals? (c) Applicable to hospitals in the Netherlands? (d) Perceived as new to the hospital?

All potential innovations derived from the open interviews were confronted with these acceptance criteria. An acceptance criterion can be: (a) accepted, (b) questionable or, (c) rejected. We defined the following rules of acceptance: (a) The potential HRM innovation is accepted if all acceptance criteria are fulfilled, (b) If one or more acceptance criterion is questionable, the potential HRM innovation is questionable. (c) If one or more acceptance criterion is rejected, the potential HRM innovation is rejected. 2 out of 52 potential HRM innovations where questionable, the remainder was accepted (see Appendix Q).

Following our constructed definition of an HRM innovation in GDHs, an HRM innovation that is perceived as such in the Dutch healthcare sector, is not necessarily an HRM innovation to other sectors in the Netherlands. According to Malerba (2002) sectors provide a key level of analysis in the examination of innovative activities. Therefore, we compared the HRM innovations we found in the open interviews with the HRM innovations we found in other sectors in the Netherlands. The Dutch Chamber of Commerce distinct the following 14 sectors in the Netherlands: (a) agriculture and horticulture, (b) business services, (c) catering, (d) construction, (e) culture, sports and recreation, (f) energy, water and environment, (g) financial Institutions, (h) healthcare, (i) ICT and media, (j) industry, (k) logistics, (l) retail, (m) wholesale and, (n) other (Kamer van Koophandel, 2014)9. By searching in Scopus on the keywords: "HRM innovations" OR "HR innovations", ["Dutch" OR "Netherlands"], [name of sector #1 … #14, minus healthcare sector].

Finally, we discussed the consequences and possible drawbacks of HRM innovations in DGH, diffusion of HRM innovations in healthcare, and possible future developments in DGHs.

Summarizing: We started the design of the research by structuring the information. We categorized HRM innovations in three distinctive sets and serially numbered the found HRM innovations. We reviewed the literature to find HRM innovations in a healthcare context. To get a first impression of the current state of affairs in the field of HRM innovations in DGHs, we analysed the HRM part of the websites of all DGHs. We asked all DGHs to participate in an open interview which yielded 10 responses. The open interviews were conducted on the basis of an interview protocol and recorded. The voice recordings where transcribed in an anonymous way after which the recordings were deleted. The transcriptions were stored in the DANS-database and worked out in interview reports which were reviewed by the interviewees. The corrected interview reports were, based on selection criteria, coded in two levels. To check the reliability of the coding, we compared our coding with that of an external reviewer and concluded that the reliability was reliable. To analyse the information, the HRM innovations from the literature and from the open interviews where put in a Venn diagram. Furthermore, the results of the open interviews were analysed in a Venn diagram conform our categorisation.

[9] This was on May 2016 the latest version of this report.

4. Findings

HRM Innovations in DGHs, Descriptions

The review of the webpages of all DGHs (see Table 2), together with the results of the open interviews (see Table 3), sketches the following picture of HRM innovations in DGHs in table form.

Table 2

HRM Innovations from Websites from DGHs in Aggregated Form

Label	Sub-label	Description
		Employment innovations
Career development	Employment coach	An employment coach from an internal career consulting firm investigates in a conversation with the employee career and employment questions.
Career development[a]	Internal application	An employee can create an account to place his curriculum vitae and to manage his applications.
Communication[a]	Displaying employee satisfaction	Employee satisfaction is measured periodically and displayed in performance indicators in a quality window that is publicly available.
Communication	Transmural coordination[b]	Some DGHs only have transmural sharing of information of incidents. Others have a transmural coordinator to ensure a good regional transmural coordination.
Learning[a]	Blended learning	E-learning is a digital part of the overall training package for clinical courses, training days, skills and practical tests in the skills lab. Several DGHs mention a shift from classical classroom learning to blended and e-learning.
Learning	Cooperation	Cooperation with other hospitals and/or high schools regarding training.
Learning	Enforcement of learning	Employees are expected to collect yearly a certain amount of study points that can be gained by participation in courses and trainings.
Learning	Gemba, learning	Two form of learning on the work floor were identified: indoor training and bedside teaching.
Learning[a]	Introduction program	Introduction information, for example in the form of a booklet on the website or a presentation on the website for new employees, protected by a password. Following this digital introduction program can be obligatory.
Learning	Knowledge centre	Knowledge centre (a.k.a. open learning centre) with a medical library, practice rooms, classrooms and computer workstations that is accessible to all employees.
Learning	Learning organization	HRM assist the organization in becoming a learning organisation.
Learning	Learning@work	Learning is an integral part of working.
Learning	Reward	Job security when following a training from the DGH.
Learning	Role play	sTimul Netherlands, care-ethical lab: Training by role plays to confront caretakers with their own behaviour and thereby learning to do it differently.
Learning	Skill lab	Skills lab can be equipped with manikins and phantoms in order to mimic the overall care of patients. Several forms of skills labs were identified. Some skills labs work with video feedback. One has made a distinction between a “wetlab” and a “drylab”. One employs an amanuensis. One DGH has a mobile skills lab. No DGH mentioned that they share a skills lab; they all have their own skill labs.
Learning	Strategy focus HRM personnel	HRM employees are trained to develop them from an administrative expert towards a strategic advisor for management.
Learning[a]	Serious game	In a fictitious DGH, employees learn what the added values of their colleagues are and how they must work together as a team for maximum results.
Learning	Transfer of learning	Before, during and after a learning route, the transfer is increased by the manager, the teacher or the employee.
Learning[a]	Virtual training	E-learning in a virtual reality environment.
Recruitment[a]	Application help	Application tips on website.
Recruitment[a]	Application management	External applicants can create an account to place his curriculum vitae and to manage his applications.

(continued)

Label	Sub-label	Description
Recruitment[a]	Job alert	An applicant receives an email when there is a job available that matches his profile or receives weekly an email or digital newsletter with vacant positions. An applicant can also keep breasted of new job offerings via Facebook, Twitter, LinkedIn.
Recruitment[a]	Open application	Offering opportunity for open application on website.
Recruitment	Pre-recruitment	The DGH organizes different activities where interested parties can meet employees and have the opportunity get to know the DGH better. There are regular orientation visits for secondary schools students or guided tours The DGH participates in educational and professional markets and on regional job fairs. Furthermore, the DGH maintains at least once every two years an open day.
Recruitment	Voluntary workers	Recruitment of voluntary workers.
		Work innovations
Efficiency improvement	Lean	Working from a Lean management philosophy, leads to providing only those services that are in the best interest of the patient.
Efficiency improvement[a]	Absenteeism tracking	In an absenteeism tracking system, managers can register employee sickness and recovery.
Sharing	Pool sharing	Sharing of flex workers by several DGHs.
Sharing	Pool sharing	Flexible pool of employees by working with different forms of contracts like fixed, flexible and freelance to become an agile organisation.
Sharing	Pool sharing	A platform for the exchange of talents between participating DGHs. This leads to job enrichment of the employee.
Sharing	Knowledge sharing	Sharing knowledge and experience between employees.
Working conditions	Atmosphere	Creation of open and direct atmosphere. Say what you do and do what you say.
Working conditions	Small teams	Working in small teams.
Working conditions	Flexible reward	Employees can, within a framework, flexibly compile their own benefits package. For example, for commuting costs, and a bicycle plan.
Working conditions	Emotional counselling	A support team offers emotional counselling for employees who are confronted with aggression or dramatic situations like the dying of a child.
Working conditions	Empowerment	Employees of the wards have in the project “Productive Ward” opportunities to improve their work, with the result that they have more time for direct patient care.
Working conditions	Multiple-choice system for employment	It lets an employee adjust some of the terms on personal circumstances or to make the choices that fit his phase in life. For example, to exchange money or time to contribute to a new bike, a membership in a union or professional association or fiscally attractive travel expenses.
Working conditions	Personal life stage budget	Personal Life stage budget for spending targets in time.
Working conditions	Sustainable employability	To keep employees physically healthy, they can get a discount on a fitness membership, participate in a running group, fiscal advantage at purchase new bike and stimulation of traveling by bike and can participate in non-smoking programs and/or weight watchers group. To keep employees mentally healthy, they can participate in massages, meditation and “balance@work” program.

[a]This is a digitalized form of this label. [b]Transmural means collaboration between first line, e.g. hospital, and second line, e.g. general practitioners, home care, nursing homes (Antonius zorggroep, 2015b).

Note. The table is divided in the types of innovation: Employment innovations and Work innovations; there are no Organisational innovations. This table is an aggregated form of the table from Appendix A. The sum of all labels is 7 and the sum of sub-labels is 37.

Table 3

HRM Innovations in DGHs from Open Interviews with DGHs in Aggregated Form

Label	#[b]	Sub-label[b]	Description
		Employment innovations	
Learning[a]	31	Blended learning	E-learning is combined with traditional class room learning (DGH#3).
Learning	43	Discretionary training	Employees have a training budget that they can spend on the training they deem necessary for themselves (DGH#5).
Learning[a]	33	Digitization medical library	Information on paper is replaced by information in electronic form. This reduces floor space and increases accessibility (DGH#5).
Learning[a]	20	E-learning via intranet	Electronic form of learning. Learning modules are embedded in an intranet portal. Managers and employees can keep track of progress in this system (DGH#1).
Learning[a]	47	E-learning in leisure	Employees follow e-learning modules in their leisure time. It is perceived as maintaining ones profession (DGH#6).
Learning	41	Train-each-other program	All cure managers where given the task to come with a proposal about how the DGH should organise cure. The result was that they started to cooperate, shared knowledge, and most importantly: they learned not only to manage top-down their own department, but became aware of the consequences of their processes in other departments (DGH#5).
Learning[c]	59	Unified leadership training	Managers, specialists and nurses work closely together and depend on each other. Instead of different leadership trainings for these different targets groups, they all follow the same unified leadership training (DGH#9).
Recruitment	49	Career carousel	Students have the opportunity to meet at least three professionals so they can orient themselves for a career in healthcare (DGH#7).
Recruitment	40	Internal employment agency	The collective of DGHs raising an internal employment agency to compete with the external employment agencies who recruited personnel of the DGHs and rented them back at the DGHs for a higher price (DGH#5).
Recruitment[a]	53	Internal job alert by email	New vacancies are emailed to all employees (DGH#1).
Recruitment[d]	25	Vacancy pool	Vacancies are shared in a vacancy pool (DGH#1).
Talent management	21	Career development	Retention and training of employees who have the potential to grow into a management function (DGH#1).
		Work innovations	
Communication[c]	9	Gemba, informing	Management walks around on the work floor and talk to the employees so they know what is happening in the workplace (DGH#1).
Communication	19	HRM business partner	The role HRM business partner deviates from the classical HRM role in two perspectives: (a) closer contact with managers, (b) thinking with manager about strategic HRM issues (DGH#1).
Efficiency[a]	55	Automated presence registration & employee/customer identification	At arrival and departure, the employee holds his smartphone against the pass of the customer to register. This presence registration, employee and customer identification is used to automatically: (a) make the invoice for the client, (b) to update the wage administration (DGH#9).
Efficiency[a]	12	Big Data, to compose optimal teams	Use Big Data to analyse characteristics of individual employees to form optimal teams (DGH#3).
Efficiency[e]	18	Chain of care	In a chain of care, the interfaces between different forms of care are harmonized. It is primarily a healthcare innovation. From an HRM perspective, it can lead to an increase of efficiency due to scale of economy (DGH#1).
Efficiency[a]	29	Database	Store digitalized information in a database to increase accessibility of information and reduce costs (DGH#3).

(continued)

Label	#[b]	Sub-label[b]	Description
Efficiency[a]	32	Delegation HRM administration to employee	Digitization of information has made it possible that a part of the personnel administration is now processed by the employee instead of by HRM (DGH#4).
Efficiency	58	Harmonisation of job classifications	Dutch hospitals basically all do the same work and use the same FWG (job evaluation healthcare) but use different profiles. Harmonization of the job structure and embedding in the collective agreement would save cost throughout the Dutch healthcare system (DGH#9).
Efficiency[f]	9	Lean	All managers are trained as Lean manager. The Lean Manager identifies waste on a Lean-board with his employees and then try to eliminate this waste (DGH#1, DGH#7).
Efficiency[f]	42	Magnet hospital	The hospital adopts the principles of excellence or excellent care (DGH#5).
Efficiency	27	Process nurse	A nurse with logistical knowledge who manages the dismissal process of the patient (DGH#2).
Efficiency[a]	50	Process optimisation with activity trackers	Employees of various departments are equipped with an activity tracker. The collected logistical data is used for process optimisation (DGH#7).
Efficiency[a]	54	Three-click rule	All HRM related information is accessible within maximal three mouse clicks (DGH#9).
Efficiency	51	Outsourcing non-core activities	The core business of the hospital is caring for their patients. Work that is not part of the core business is outsourced (DGH#8).
Efficiency	60	Outsourcing people quadrants of Ulrich model	The HRM model from Ulrich defines four roles. The people related roles: (a) strategic partner and (b) change agent, and the process related roles: (c) administrative expert and (d) employee champion. Partly outsourcing the people related roles, improves the quality of these roles and reduces the HRM headcount (DGH#10).
Efficiency[a, g]	48	Work capacity monitor	Part of an employee survey is measuring the work capacity. The employee get the results instantly. The organisation can facilitate the employee to increase his work capacity (DGH#7).
Efficiency[g]	44	Work half time and get paid 75% for 60+ employees	HRM offered the 60+ employees to work half time and get paid 75% to decrease overall sickness rate, decrease average loan costs and increase inflow of youngsters (DGH#5).
Efficiency	28	HRM Workflow	Optimise processes in an HRM workflow (DGH#3).
Sharing[h]	39	Collective calculation of training needs	For all functions, the calculation for training needs is calculated for all hospitals in the region to increase control over this closed market (DGH#5).
Sharing[h]	24	Cooperation	The HRM department cooperates with all care and cure organisations in the region or with other care organisations on different levels. E.g. to develop trainings (DGH#1).
Sharing[e]	26	Coopetition	HRM departments of competing hospitals work together on expensive HRM improvements (DGH#1).
Sharing[e]	61	Networking	Employees are stimulated to participate in various networks. The advantage of being part of networks is that one knows what's going on, to learn, to exchange ideas and to accelerate in that way (DGH#10).
Sharing[f]	46	Old boys network	HRM managers informally appeal to each other. For example when someone needs an employee with certain knowledge or skills, or when one has supernumerary staff (DGH#6).
Working conditions	56	Continuous measurement of employee satisfaction	A minor incident during an e.g. biannual employee satisfaction survey can have a major impact on the result. By measuring weekly, the results become more reliable and immediately actions can be taken and communicated towards the employees (DGH#9).

(continued)

Label	#[b]	Sub-label[b]	Description
Working conditions	22	Prevention officer	Employees who have an interest, are trained to become a prevention officer. This is a secondary task. The logic behind this is that they know best what is going on their department (DGH#1).
Working conditions	35	Preventive sustainable employability	Working on vitality start already with junior employees to prevent having problems in old age (DGH#4).
Working conditions	57	Vitality week	In an annual vitality week, employees are made aware of the importance of health and encouraged to change their live style (DGH#9).
		Organizational innovations	
Culture	37	At any time a tailored meal	The appetite of a patient depends on how he feels at a certain moment in time. Therefore tailored meals can be served at any moment (DGH#4).
Culture	34	Connecting MC of employment to company goals	The Multiple Choice of employment is connected to the company goals (DGH#4).
Culture	38	Contact regulations	Misuse of social media tarnished the reputation of the DGH in the past. Therefore the DGH made a guideline with the do's and don'ts of social media (DGH#4).
Culture	30	Corporate values derived from employees values	Corporate core values are derived from the employee's core values so employees feel identified by them (DGH#3).
Culture	36	Crew resource management	Teams are trained in and encouraged to speak up when they suspect that something could be harmful to the patient (DGH#4).
Culture[c]	23	Flat organisation	By focussing on short communication line and laying responsibilities as low in the organisation as possible, a flat organisation is established. The logic behind this is that it improves efficiency (DGH#1).
Culture	52	Participatory healthcare	A physician sees the patient as a partner and together they face the challenges of the patient (DGH#8).
Culture[g]	45	Train employees how to cope with change	HRM innovations yields resistance. The DGH gives their employees workshops about how to cope with change (DGH#6).

[a]This is a digitalized form of this label. [b]Alternative sub-labels are mentioned in footnotes. [c]Can alternatively be labelled efficiency. [d]Can alternatively be labelled sharing. [e]Can alternatively be labelled communication. [f]Can alternatively be labelled culture. [g]Can alternatively be labelled learning.

Note. The table is divided in 3 types of innovation: Employment innovations, Work innovations, and Organisational innovations. The information is derived from Appendix E up to and including Appendix N. The sum of all labels is 8 and the sum of all sub-labels is 47.

HRM Innovations in DGHs, Findings

The two tables from the previous section are in this section rewritten in narrative form and supplemented with background theory.

Employment innovations.

Regarding *learning*: Several HRM innovations are related to e-HRM, which is defined by Ruël and Bondarouk (2004, p. 2) as "a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support of and/or with the full use of web-technology-based channels." Several DGHs work with a *knowledge centre* (a.k.a. open learning centre) with a medical library, practice rooms, classrooms and computer workstations that is accessible to all employees. *Digitizing the medical library*, reduces floor space and increases accessibility. Welsh et al. (2003, p. 246) define *E-learning* as "the use of computer network technology, primarily over an intranet or through the Internet, to deliver information and instruction to individuals". With *e-learning via intranet*, learning modules are embedded in an intranet portal and with *e-learning management*, manager and employee have insight in the training portfolio of an employee in a digital learning environment. The system gives a warning when an action by a manager or an employee is required. Another form of e-learning is learning in a virtual reality environment a.k.a. *virtual training*. One DGH works with *blended learning* which is de defined by Garrison and Kanuka (2004, p. 96) as "the thoughtful integration of classroom face-to-face learning experiences with online learning experiences." DGHs seek *cooperation* with other DGHs and high schools to co-develop e-learning modules.

We identified two forms of learning on the work floor, also called *Gemba*: indoor training and bedside teaching. Several DGHs emphasized on their websites that they have a *skills lab*. Although skills labs are not new in themselves in healthcare (cf. e.g. Nikendei et al., 2005), we identified several forms special forms of skills labs. Some DGHs work with video feedback, one has made a distinction between a "wetlab" and a "drylab", one employs an amanuensis[10] and one has a mobile skills lab. We found no evidence that DGH cooperate in the development or employment of skills labs.

Role plays can be utilized to confront caretakers with their own behaviour and thereby learning to do it differently. In one DGH the employees learn in a fictitious DGH what the added values of their colleagues are and how they must work together as a team for maximum results. They did this in the form of a *serious game*.

If different functions have to work closely together, attending the same leadership training, or *unified leadership training*, instead of different leadership training can lead to a better mutual understanding and better collaboration. In a *train-each-other program*, managers started to cooperate, shared knowledge, and most importantly: they learned not only to manage top-down their own department, but became aware of the consequences of their processes in other departments.

In some DGHs, HRM employees are trained to develop them from an administrative expert towards an *HRM strategic advisor* for management. Some DGHs have an obligatory *introduction program* where new employee receive introduction information, for example in the form of a booklet or presentation on the intranet, protected by a password.

An HRM department can assist a DGH to become a *learning organizations* which is defined by Davies and Nutley (2000, p. 998) as "Organisations that position learning as a core characteristic".

[10] Expert, assistant, in the preparation and execution of tests, controlled laboratories, helper in laboratories, museums and schools (Van Dale, 2014).

For new employees, completing a predefined training portfolio can be *rewarded* in the form of job security. Some DGHs *enforce learning* by expecting that permanent employees collect yearly a certain amount of study points that can be gained by participation in courses and trainings. *E-learning in leisure* means that employees follow e-learning modules in their leisure time. It is perceived by them as maintaining ones profession. A *discretionary* training means that employees have a training budget that they can spend on the training they deem necessary for themselves.

Regarding *recruitment*: One DGH has *application tips* on their website for external applicants. Another DGH offers external applicants the possibility of *application management* to create an account to place e.g. his curriculum vitae. Similar concepts are that external applicants can put an open application on the website of the DGH. Or an applicant receives a *job alert* by email when there is a job available that matches his profile or receives weekly an email or digital newsletter with vacant positions. An applicant can also keep breasted of new job offerings via social media like Facebook, Twitter, or LinkedIn.

As a form of *pre-recruitment*, one DGH organizes different activities where interested parties can meet employees and have the opportunity get to know better the DGH better. There are regular orientation visits for secondary schools students or guided tours The DGH participates in educational and professional markets and on regional job fairs. Furthermore, the DGH maintains at least once every two years an open day. Finally, one DGH used their website for the *recruitment of volunteers*. Penner (2002, p. 448) defined volunteerism as "long-term, planned, prosocial behaviours that benefit strangers and occur in an organizational setting".

A *career carousel* offers students have the opportunity to meet at least three professionals so they can orient themselves for a career in healthcare. A collective of hospitals raised an *internal employment agency* to compete with the external employment agencies who recruited personnel of the hospitals and rented them back at the hospitals for a higher price. In an attempt to retain employees, there is the possibility of an *internal job alert by email* where new vacancies are emailed to all employees. Finally, vacancies can be shared in a *vacancy pool* that is managed by several cooperating hospitals.

Regarding *talent management*: Some DGHs work with an *employment coach*. An internal career consulting firm investigates in a conversation with the employee career and employment questions. An employee can create an account on the intranet site of the DGH he works for where he can place his curriculum vitae and manage his internal applications.

Retention and training of employees who have the potential to grow into a management function is a form of *career development*.

Work innovations.

Regarding *communication*: Some DGHs *display employee satisfaction*; employee satisfaction is measured periodically and displayed in performance indicators in a quality window that is publicly available. Some DGHs only have transmural sharing of information of incidents. Others have a *transmural coordinator* to ensure a good regional transmural coordination. According to Oeseburg et al. (2004, p. 215) transmural care "is provided by healthcare professionals from primary and hospital teams on the basis of coordination and cooperation, with shared responsibility and specification of delegated responsibilities."

In one DGH management walks around on the work floor, a.k.a. *Gemba*, and talk to the employees so they know what is happening in the workplace. In another DGH the HRM department changed their role towards an HRM business partner. This role deviates from the classical HRM role in two perspectives: (a) a closer contact with managers, (b) thinking with manager about strategic HRM issues.

Regarding *efficiency*: Several DGHs work from a *Lean management* philosophy, by providing only those services that are in the best interest of the patient. Some DGHs have an *absenteeism tracking system* where managers can register employee sickness and recovery.

Information is digitalized and stored in a *database* to increase accessibility of information and reduce costs. To further increase accessibility, All HRM related information is accessible within maximal three mouse clicks a.k.a. *three-click rule*. Koiso-Kanttila (2005, p. 64) refers in this context to the "eight-second three-click rule" implying that webpages must load within eight seconds and content must accessible be within three clicks.

Big Data is used to analyse characteristics of individual employees to form optimal teams for a certain task. Digitization of information has also made it possible that a part of the personnel administration is now processed by the employee instead of by HRM. This is a *delegation of HRM administration to employees*.

The increased accessibility of information also opens the possibility of the *harmonisation of job classifications*. Dutch hospitals basically all do the same work and use the same FWG (*functiewaardering gezondheidszorg*) (job evaluation healthcare) but use different profiles. Harmonization of the job structure and embedding in the collective agreement would save cost throughout the Dutch healthcare system.

In a *chain of care*, the interfaces between different forms of care are harmonized. Åhgren (2003, p. 2) defined this concept as ''coordinated activities within health care, linked together to achieve a qualitative final result for the patient. A chain of care often involves several responsible authorities and medical providers''. From an HRM perspective, it can lead to an increase of efficiency due to scale of economy.

Processes are optimized in an HRM *workflow*. Logistical processes can also be optimised with an *activity tracker*. Employees of various departments are equipped with this device to collect logistical data. The focus on logistical improvement, led to the raise of a *process nurse*. This is a nurse with logistical knowledge who manages the dismissal process of the patient.

Assuming that the core business of the hospital is caring for their patients, work that is not part of the core business can be *outsourced*. More specifically, the *people related quadrants of Ulrich's HRM model* (see Figure N1) can be outsourced. Partly outsourcing the people related roles, improves the quality of these roles and reduces the HRM headcount. The HRM model from Ulrich defines four roles. The process related roles: (a) strategic partner and (b) administrative expert, and the people related roles: (c) change agent, and (d) employee champion (Ulrich, 1997).

A *magnet hospital* adopts the principles of excellence or excellent care. According to Armstrong and Laschinger (2006, p. 125) "In the 1990s, the American Nurses Association established the Magnet Recognition Program to acknowledge excellence in nursing services."

One DGH trained all their managers as *Lean* manager. The Lean manager identifies waste on a Lean-board with his employees and then they try to eliminate this waste.

With a *work capacity monitor*, part of an employee survey is measuring the work capacity. The employee get the results instantly. The organisation can facilitate the employee to increase his work capacity. To redistribute the work capacity, a DGH offered to *work half time and get paid 75% for 60+ employees* to decrease overall sickness rate, decrease average loan costs and increase inflow of youngsters.

Regarding *sharing*: Several DGHs share a *pool of flex workers*. Or there is a flexible pool of employees by working with different forms of contracts like fixed, flexible and freelance to become an agile organisation. A specific form is a platform for the *exchange of talents* between participating DGHs. This leads to job enrichment of the employee.

Several HRM departments *cooperate* with all care and cure organisations in the region or with other care organisations on different levels. E.g. to develop trainings. This offers also the opportunity for a *collective calculation of training needs*. This means that for all functions, the calculation for training needs is calculated for all hospitals in the region to increase control over this closed market.

Coopetition is a contraction of cooperation and competition. A concrete example is that HRM departments of competing hospitals work together on expensive HRM improvements.

Employees are stimulated to participate in various networks, a.k.a. *networking*. The advantage of being part of networks is that one knows what's going on, to learn, to exchange ideas and to accelerate in that way. A specific form of networking is the *old boys network* where HRM managers informally appeal to each other. For example when someone needs an employee with certain knowledge or skills, or when one has supernumerary staff. According to McDonald (2011, p. 317) "It is popularly assumed that being a member these networks could significantly increase a person's labour market opportunities because they can provide valuable sources of social capital."

Regarding *working conditions*: Some DGHs create an *open and direct atmosphere* with the maxim: say what you do and do what you say. Or there is a focus on working in *small teams*. One DGH has a support team that offers *emotional counselling* for employees who are confronted with aggression or dramatic situations like the dying of a child. One DGH had, as a form of *empowerment*, the project "Productive Ward". Employees of the wards[11] have opportunities to improve their work, with the result that they have more time for direct patient care. This quality improvement programme was developed by the National Health Service (NHS) in the UK cf. e.g. (Robert, Morrow, Maben, Griffiths, & Callard, 2010; Wilson, 2009) and adopted by at least one hospital in the Netherlands (van den Broek, Boselie, & Paauwe, 2014).

Several DGHs have a *multiple-choice system for employment*. It lets an employee adjust some of the terms on personal circumstances or to make the choices that fit his phase in life. For example, to exchange money or time to contribute to a new bike, a membership in a union or professional association or fiscally attractive travel expenses.

A minor incident during an e.g. biannual employee satisfaction survey can have a major impact on the result. By the *continuous measurement of employee satisfaction*, the results become more reliable and immediately actions can be taken and communicated towards the employees.

Employees who have an interest, are trained to become a *prevention officer*. They have the task of increasing the safety on the department they work on. This is a secondary task. The logic behind this is that they know best what is going on their department.

Finally, several DGHs invest in *sustainable employability* which is characterized by Kraan and Wevers (2012, p. 1) as "the capability of employees to participate in a healthy, vital and productive way in paid work until they are eligible for a pension". To keep employees physically healthy, they can get a discount on a fitness membership, participate in a running group, fiscal advantage at purchase new bike and stimulation of traveling by bike and can participate in non-smoking programs and/or weight watchers group. To keep employees mentally healthy, they can participate in massages, meditation and "balance@work" programs. *Preventive sustainable employability* focusses on working on vitality already with junior employees to prevent having problems in old age. One DGH organizes annually a *vitality week*, where employees are made aware of the importance of health and encouraged to change their life style.

Organisational innovations.

Regarding *culture*: The appetite of a patient depends on how he feels at a certain moment in time. Therefore *at any time a tailored meal* can be served. This other approach of dealing with patients

[11] A separate room in a hospital, typically one allocated to a particular type of patient.

comes also back in *participatory healthcare* where a physician sees the patient as a partner and where they together face the challenges of the patient. closely related concepts or synonyms are: *patient involvement* and *patient-centeredness* (Evers et al., 2012), *participatory patients* (Chase & Hoffman, 2014) and *collaborative healthcare* (Morgan, 2015).

The concept of multiple choice (MC) of employment is not new, it was introduced by the Rijnstate hospital in the 90's as a cafeteria model. New, however, is the *connecting MC of employment to company goals*. In line with this *corporate core values can be derived from the employee's core values* so employees feel identified by them. Misuse of social media tarnished the reputation of a DGH in the past. Therefore the HRM department made a *guideline with the do's and don'ts of social media*.

Nurses are subordinate to doctors (Currie & White, 2012) and intra-professionally, nursing is relatively hierarchical (Robinson, Murrells, & Marsland, 1997). A number of (almost) accidents happened because a subordinate did not dare the wrong decision of a superior. In *crew resource management*, teams are trained in and encouraged to speak up when they suspect that something could be harmful to the patient. By focussing on short communication line and laying responsibilities as low in the organisation as possible, a *flat organisation* is established. The logic behind this is that it improves efficiency. HRM innovations can yield resistance. Therefore some DGHs *train employees how to cope with change*.

Focus HRM Departments

The foci of the departments HRM are derived from the open interviews (see Appendix E up to and including Appendix N).

Table 4

Focus HRM Departments

Focus of HRM department	Serial number DGH											
	1	2	3	4	5	6	7	8	9	10	Sum[a]	
Current merger			✓			✓	✓	✓			4	(23,5%)
Processes		✓					✓			✓	3	(17,6%)
Cooperation with external parties	✓				✓						2	(11,8%)
Systems			✓						✓		2	(11,8%)
Communication	✓										1	(5,9%)
Core business		✓									1	(5,9%)
HRM headcount reduction										✓	1	(5,9%)
Humans				✓							1	(5,9%)
Outsourcing								✓			1	(5,9%)
Training					✓						1	(5,9%)
Total											17	(100%)

[a]Absolute sum displayed without brackets, Relative sum displayed with brackets.

The open interviews reveal that if DGHs are involved in a merger, then this is their focal point. If mergers are left out of consideration, DGH's focus on processes. Most the foci of the HRM deviate from each other (see Table 4).

Numbers, Ratios and Overlap of HRM Innovations

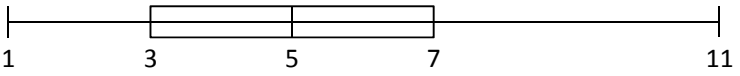
Table 5

Numbers of HRM Innovations and Ratios of HRM Innovation Types

#[a]	∑ HRM innovations	Ratio of HRM innovation types: Employment innovations, Work innovations, and Organizational innovations (E:W:O)[b]	
1	11	3:7:1	(27%:64%:9%)
2	1	0:1:0	(0%:100%:0%)
3	6	2:3:1	(33%:50%:17%)
4	8	2:2:4	(25%:25%:50%)
5	7	3:4:0	(43%:57%:0%)
6	3	1:1:1	(33%:33%:33%)
7	4	1:3:0	(25%:75%:0%)
8	2	0:1:1	(0%:50%:50%)
9	7	2:5:0	(29%:71%:0%)
10	3	0:2:1	(0%:67%:33%)
Total	52	14:29:9	(27%:56%:17%)

[a]Serial number DGH. [b]Absolute ratio's displayed without brackets, Relative ratio's displayed with brackets.

Table 5 shows that the open interviews yielded 52 HRM innovations. Most of them are work related.



n	10
Min.	1
Q1	2.75
Median	5
Q3	7.25
Max.	11

Figure 5. Number of HRM Innovations in DGHs.

Figure *5* shows that the range of found HRM innovations per DGH is wide (10). Due to the low modus (5) in combination with this wide range, we refrain from statements about the ratio of HRM innovation types per DGH.

Appendix S shows the HRM innovations found by literature review (17) as well as the HRM innovations found in DGHs by open interviews (70) and their intersection (3).

Van den Broek – van Dongen (2014) recognizes that the distinction between the three categories of HRM innovations is not always sharply delineated. During the categorisation of the HRM innovations that were found in the open interviews, there was always one HRM innovation type dominant. For some HRM innovations there were, however, alternatives possible. This is visualized in Figure 6. An elaborated overview is included in Appendix Q. The figure shows that there is an overlap between HRM innovation types. More specific, for DGHs, the subsets of all pairs of sets are not empty (1, 4, 5) and the subset of all three sets is empty.

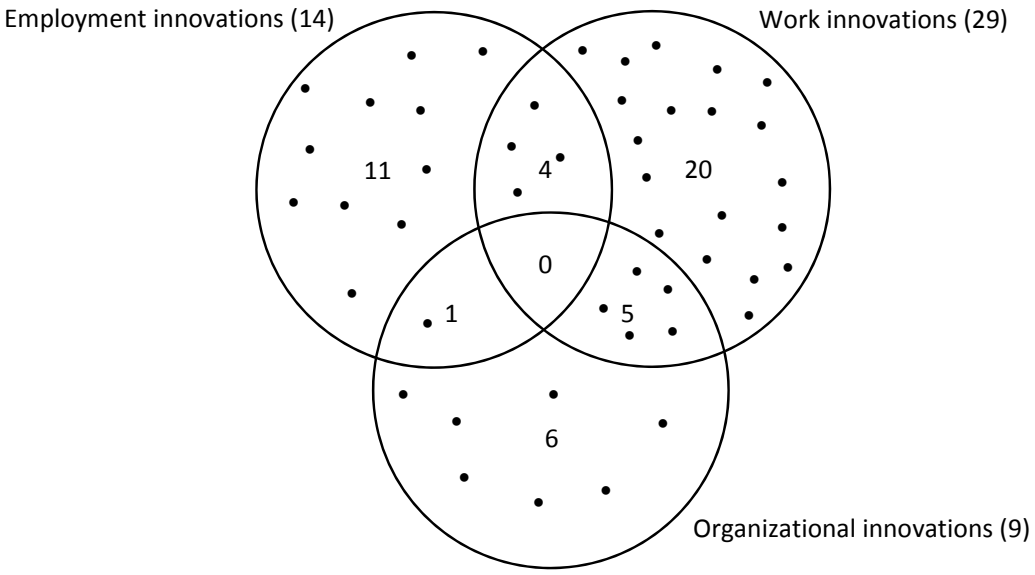


Figure 6. Distribution and Degree of Overlap of HRM Innovation Types, Extracted from Open Interviews.
Every dot in the Venn diagram represents an HRM innovation. The numbers of HRM innovations per set are between brackets at the end the set name and per subset in the diagram. Data is derived from Appendix Q.

Summary
Results were obtained from the webpages of all DGHs and from the open interviews. The webpages yielded HRM innovations in the categories employment innovations and work innovations, but no organizational innovations, where the open interviews yielded HRM innovations in all three categories.

There is a focus on the topic of learning in a digital environment like an introduction program for new employees on the intranet, e-learning, serious games, and virtual training. With e-learning via intranet, learning modules are embedded in an intranet portal and can be managed by managers and employees. The digital and physical environment meet in blended learning and in a knowledge centre with a digitized medical library, practice rooms, classrooms and personal computers. To train practical skills, DGHs have several forms of skill labs, they engage in role plays, or they concentrate on Gemba. From a social perspective, DGHs can focus on becoming a learning organisation, e.g. by stimulating employees to learn by either enforcement or rewarding, or HRM departments can focus on evolving towards HRM strategic advisor. In a unified leadership training, leaders from different disciplines, follow the same leadership training. Managers can also participate in a train-each-other program. Employees can be granted their own training budget. Employees can be stimulated to follow e-learning modules in their leisure time.

Also recruitment, is focussed on the digital environment. A DGH can show application tips on their website, they can offer external applicants to manage their applications on the website of the DGH, and they can keep external and internal applicants abreast of job offerings by e.g. a newsletter, by email, or social media. As a form of pre-recruitment, a career carousel offers students to meet professionals. DGHs can collectively compete with the external employment agencies by e.g. an internal employment agency or a vacancy pool.

DGHs adopted a Lean management philosophy to improve efficiency, adopted Gemba to know what is happening on the work floor, or concentrated on becoming a magnet hospital to reach excellent care. Communication is improved by e.g. displaying employee satisfaction publicly or by transmural sharing of information. Also shared are e.g. a pool of flex workers and a platform for the exchange of talents.

Enclosure of information by digitalization makes it e.g. possible to use Big Data to analyse this information and to delegate partly the personnel administration to the employees. It also facilitates harmonisation of e.g. job structured on national level or of interfaces in a chain of care. Processes are optimized in HRM workflows. Logistical processes can be optimised by equipping employees temporarily with activity trackers or by employing process nurses to manage the dismissal of patients. A DGH can offer 60+ employees to work half time and get paid 75% to decrease overall sickness rate, decrease average loan costs and increase inflow of youngsters. A DGH can facilitate employees to increase their work capacity by monitoring and instant feedback.

DGHs improve working conditions by e.g. creating an open and direct atmosphere, focussing on working in small teams, offering emotional counselling, or offering employees the opportunity to improve their own work. There are several possibilities to set up a system for a multiple-choice system for employment. This also applies to sustainable employability.

An HRM business partner thinks with manager about strategic HRM issues.

DGHs are involved in cooperative and coopetitive relationships. Employees can be stimulated to participate in networks and managers can network in old boys networks.

Continuous measurement of employee satisfaction leads to more reliable results and increased feedback possibilities. Employment of a prevention officer increases departmental safety, and preventive sustainable employability precludes junior employees developing old age-related health problems. An annual vitality week, increases employees' health awareness.

In participatory healthcare a physician regards the patient as a partner. Corporate core values can be derived from the employee's core values so employees feel identified by them and aligned to multiple choice of employment systems. A guideline with rules of conduct decreases misuse of social media by employees. Employee's resistance, caused by HRM innovations, can be mitigated by training. In crew resource management training authoritarian relations are tempered.

Generally, system thinking is dominant. But if DGHs are involved in a merger, then this is their focal point. There is a wide gap between the HRM innovations found in the literature and in DGH's. Most of the HRM innovations are work related. the range of found HRM innovations per DGH is wide (10) with a modus of 5. The distinction between the three categories of HRM innovations is not always sharply delineated and there is an overlap between them.

5. Discussion

Perception of HRM managers of HRM Innovations in DGHs

The literature review revealed several definitions of HRM innovations in DGH. For this thesis we defined it as: "HRM innovations in DGHs are all management decisions and activities that affect the nature of the relationship between hospitals in the Netherlands where during day and night all forms of medical specialistic help can take place, and its employees, that are perceived as new to the hospital."

The perceptions of the interviewees of HRM innovations in DGHs deviate from the literature as well as mutually:

Regarding the level of HRM innovativeness, the healthcare sector is not very open to HRM innovations (interviewee #6), is not pre-eminently the place where HRM innovations take place (interviewee #1), is not renowned for its ability to innovate HRM (interviewee #10) and currently there are no substantial HRM innovations (interviewee #9). Healthcare is innovating in a faster pace than HRM (interviewee #8) and the level of HRM innovativeness depends on the category of hospitals (e.g. an academic hospital e.g. is more innovative than a general hospital) (interviewee #1).

HRM innovation must not become a goal in itself (interviewee #2, #6, #7) and one must be convinced that it is a breakthrough (interviewee #6).

The interviewees think that current HRM innovations are at the cross section of (a) technology, (b) Big Data and, (c) human resources (interviewee #3). It must be an out-of-the-box perspective (interviewee #6), must have added value and an impact (interviewee #7, #10) and it must not be a small step but rather a leap (interviewee #6). An HRM innovation doesn't feel like an HRM innovation if it is already in use in another hospital, but rather an HRM change, progress, or modification (interviewee #4). Furthermore, when you peel HRM innovations off, they often are just as old wine in new bottles (interviewee #4).

When HRM empowers the work floor, HRM innovations spawn from there (interviewee #7). The HRM innovation is slowed down when activities with a higher priority emerge (interviewee #8). HRM should keep track on what is going on in the area of HRM innovations and apply that to their own organization (interviewee #6).

The nature of work is changing due to HRM innovations (interviewee #8) and HRM innovations might lead to a reduction of HRM staff in the future in the healthcare sector (interviewee #6).[12]

Although some of the definitions regarding innovation make a distinction between a radical innovation and an incremental innovation, none of these definitions contain a threshold. Still we share the feeling of the interviewees that there comes a point that an improvement is so small that it can no longer be named an incremental innovation. Since we could not operationalise such threshold, in case of doubt, we opted for the term innovation. As a result, our overview of HRM innovations in DGHs contain perhaps some HRM innovations that match the definition of HRM innovations but not the perception of HRM innovations.

Summarizing and concluding: Generally, HRM managers of DGHs feel that HRM innovations must fulfil the criteria: radical, new to the healthcare sector, and add value. They think that although DGHs are lagging behind regarding HRM innovations, still, they will change the nature of HRM work. It is not always clear for them if an HRM improvement deserves the label HRM innovation and the perceptions of HRM managers of DGHs about HRM innovations in DGHs deviate from the literature as well as mutually.

[12]The information in this paragraph is derived from the open interviews and the serial numbers of the interviewees equal those of the hospitals.

Main Topics

Technical innovations impact HRM innovations.

Different forms of innovation are often presented as pendants which is known as the "dual core" model of innovations (Ettlie, Bridges, & O'Keefe, 1984). Daft (1978) distinct between technical versus administrative innovations.

Interviewee #10 feels that although in itself, digitalisation is not an HRM innovation, it has a big impact on the organisation and affects all the regular HRM processes. The findings from the websites of the DGHs as well as the open interviews confirm that especially technical innovations impacted the HRM innovations in DGHs. For example: Big Data, digital absenteeism tracking, digitizing of information on paper, e-learning in several forms, e-recruitment, job alert by email, video feedback and virtual training. These examples can be brought together under the umbrella term e-HRM.

Ruël and Bondarouk (2004, p. 1) conclude, based on explorative case studies in large companies, that "the goals of e-HRM are mainly to improve HR's administrative efficiency/to achieve cost reduction." and that "e-HRM hardly helped to improve employee competences, but resulted in cost reduction and a reduction of the administrative burden." We found empirical evidence that their conclusion from 2004 that e-HRM hardly helped to improve employee competences, is perhaps overtaken by time.

For example, interviewee #4 mentioned that filming of feedback sessions, a form of e-learning, after surgical operations seems to be an adequate instrument. And Knight et al. (2010) claims that in England, a test with the software Triage Trainer, another form of e-learning, demonstrated that this tool was more effective than the traditional practical workshop.

Coopetition.

DGHs cooperate with hospitals (HagaZiekenhuis, 2015), care and cure organisations in the region (DGH#5), and high schools (Diaconessenhuis, 2015). They work together in the field of training (HagaZiekenhuis, 2015) and to share innovations (DGH#1). According to DGH#8, all HRM department heads meet monthly to discuss the current situation and how they can help each other. According to interviewee #8, there is no mutual competition since the hospitals are geographically dispersed.

As a form of coopetition, DGH#5 works together with all hospitals in the region to collectively calculate training needs and to deploy an internal employment agency and at DGH#1 HRM departments of competing hospitals work together on expensive HRM improvements.

Coopetition is a contraction of cooperation and competition and Czakon et al. (2014, p. 122) define this phenomenon as "the simultaneous use of cooperation and competition in order to achieve better collective and individual results." Peng and Bourne (2009, p. 377) found in a healthcare setting that "two organizations will compete and cooperate simultaneously when each organization has complementary but distinctly different sets of resources and when the field of competition is distinctly separate from the field of cooperation." (Barretta, 2008, pp. 217-218) explored the functioning of coopetition in the healthcare sector. They found two main characteristics of the functioning of coopetition: '(a) the pivotal role of a regulatory body in balancing competitive and cooperative incentives and (b) the strong influence of medical professionals on the coopetitive relationships among health-care trusts."

One healthcare specific form of cooperation is transmural coordination. The websites of DGHs show that some DGHs have transmural sharing of information of incidents (Sint Franciscus Vlietland Groep, 2014) while others have deployed a transmural coordinator to ensure a good collaboration between first line (hospital) and second line (general practitioners, home care, nursing homes) in the region (Antonius zorggroep, 2015b; Bethesda, 2015a).

According to Temmink, Hutten, Francke, Abu-Saad, and Van der Zee (2000, p. 90) "Dutch health care consists, traditionally, of a two-tiered system including both office-based primary care services,

such as home care, and hospital-based specialty care services. Smeenk et al. (1998) name the first tier intra- and the second tier extra-mural, hence the term transmural care. According to Oeseburg et al. (2004, p. 215) transmural care "is provided by healthcare professionals from primary and hospital teams on the basis of coordination and cooperation, with shared responsibility and specification of delegated responsibilities."

We found no literature about the function transmural coordinator which indicates that, although the concept of transmural care is not new in DGHs, this function is.

Systems thinking.

Table 4 showed that 18 percent of the HRM departments focused on processes and 12 percent on systems. Several DGHs are acquiring HRM-systems, e.g. ERP systems (DGH#2, DGH#9). These investments reduce costs through a reduction in FTEs and are also safer due to a lower risk of information corruption (DGH#2). HRM innovations like a process nurse (DGH#2), the optimisation of processes in an HRM workflow (DGH#3), de deployment of a process facilitator (DGH#4) show the focus on processes.

It is, however, a challenge to design the several systems in a way that they work together like clockwork (DGH#1). Mergers can lead to the situation that DGHs have to cope with all kinds of different HRM systems (DGH#9) and increased the need for digitization because many systems must be linked (DGH#6). Automation requires that processes are well defined (DGH#4) and at DGH#6, HRM is now working with integration processes to shape the merger process and also to interweave work processes.

"Systems are composed of multiple, interconnected components: people, machines, processes, and data." (Schyve, n.d., p. 2). According to Björnberg (2016, p. 5) healthcare is basically a process industry. As any professional manager from such an industry would know, smooth procedures with a minimum of pause or interruption is key to keeping costs low.

For (Ruona & Gibson, 2004) it is clear that several district of HRM fields have become increasingly systemic during their evolutions. Therefore, she recommends that HRM, HRD, and OD (Organisational Development) integrate into one holistic system. Trochim et al. (2006) researched the practical challenges of systems thinking and modelling in public healthcare. They define systems thinking as: "a general conceptual orientation concerned with the interrelationships between parts and their relationships to a functioning whole, often understood within the context of an even greater whole." (Trochim et al., 2006, p. 539). They come the conclusion that systems thinking in public healthcare is complicated due to its complexity and transdisciplinary nature.

According to Forrester (1992, p. 11) due to a lack of system knowledge "Systems thinking is in danger of becoming one more of those management fads that come and go." Another critical note comes from DGH#2 who warns that a strong focus on systems can lead to an organisation that loses sight of the individual or that it is at the expense of the creativity of the professional.

Summarizing and concluding: Part of the HRM innovations are driven by technical innovations. Most of them lead to e-HRM innovations. A distinct forms of coopetition in Dutch Healthcare is transmural care, which is driven by regulatory bodies and medical professionals. Several HRM innovations lead DGHs towards a holistic systems thinking. Although it has several advantages, mergers can lead to incompatible and conflicting systems. It requires thorough system knowledge to cope with the continuing systemisation and scaling.

Consequences and Potential Drawbacks of HRM Innovation in DGHs

Reducing the headcount.

As a consequence of HRM innovations in DGHs, DGHs and HRM departments themselves, can be confronted with headcount reductions.

Interviewee #1 mentions that by working smart and "lean and mean" one can do more with less people and interviewee #7 mentions that in the context of Lean, the board has been reduced to one FTE. According to Budros (2002) the lean and mean conception rejects the core assumptions of its predecessor that continual growth is natural but instead that small is beautiful, decline is natural and desirable, and non-redundancy and tight coupling underlie flexibility. Waring and Bishop (2010) doubt if Lean techniques are appropriate for the management of healthcare tasks since this environment often require complex interventions and diagnoses, unexpected surges in demand, and a general capacity for human care and compassion.

Interviewee #2 mentions that an ERP system is an expensive acquisition but that the money is recovered by a reduction in FTEs. Interviewee #6 mentions that at some banks, the HRM departments greatly reduced under the influence of HRM innovations and that this is a possible future scenario for the healthcare sector. Interviewee #8 mentions that new technologies will probably reduce the headcount of the HRM department. Finally, Interviewee #10 mentions that the DGH is currently digitalizing all basic processes in a workflow and that this will contribute to a headcount reduction of 20 per cent.

The statements of the interviewees are partly confirmed in the literature. Parry and Tyson (2011) note that some organisations in the UK had reduced their HR headcount as a result of using e-HRM, although these reductions were relatively small. Ruël and Bondarouk (2004), however, conclude that the goals of e-HRM are mainly to improve the administrative efficiency of HRM and to reduce costs.

Wagar and Rondeau (2000) studied headcount reductions in a healthcare setting. They come to the conclusion that headcount reductions can have significant organisational consequences, but they are unable to say if they are lasting. A shift towards technology at the expense of human resources, poses a risk on the foundation of HR, "where the Human resources are considered as an asset and capital to achieve organizational objectives and fulfil the mission and vision of the company." (Parveen, 2013, p. 38). In this light, it may be seen as a positivism that interviewee #9 mentions that the current automated appraisal systems promise a lot but that they do not yet realize this and it cannot be a substitute for the personal conversation.

Coping with change.

Another potential consequence is that employees have to cope with change. Changes in the environment accelerate (interviewee #3) and in case of major changes, not every employee is able to adapt (interviewee #4). S. H. Appelbaum and Wohl (2000, p. 281) agree with interviewee #3 that "The pace of change in healthcare is accelerating, not slowing."

Change is demanding for the employees who are doing something the same way for several years (interviewee #1). For example, digitization requires other skills of the employees (interviewee #7), workflows lead to a more formalized way of working in a system (interviewee #3) and is at the expense of the creativity of the professional (interviewee #2).

Interviewee #3 mentions a case of an employee who doesn't feel happy with the digitalisation of his/her work. (S)he worked at the DGH for 30 years. This person is in an outplacement route now. If this route is unsuccessful, this person will have to be fired. Interviewee #4 mentions that one cannot put the whole organization in the parking position because some individuals cannot keep pace.

Delegating HRM administration to employees.

Digitization of information has made it possible that a part (modifying contact details and travel expense claims) of the personnel administration is now processed by the employee (interviewee #4).

According to interviewee #3, HRM workflows reduced the administrative workload which resulted in a perception of the managers that HRM shifted work to them. Parveen (2013) confirms that the implementation of E-HRM is an opportunity to delegate the data entry to the employees. For example the HRM department of DGH#1 wants to fulfil a more strategic HRM role.

So, in its efforts to fulfil a more strategic role, HRM has some administrative tasks set out by the employees. As a consequence, this reduction in the workload of HRM, however, is possibly at the expense of the workload of the employee.

Scaling can lead to depersonalisation.

The websites of the DGHs as well as the open interviews made clear that several DGH are involved in mergers. This leads to scaling. Small sized hospitals are often associated with a certain seclusion, friendliness and hospitality, which in part seems to be lost in larger hospitals to the regret of both patients and staff (interviewee #3). The larger the organization, the more difficult it is to reach all employees (interviewee #9). The "old school" HRM professional was close to, and knew his customers. He was often involved in e.g. mediating in a conflict between a manager and an employee. This professional now works for the whole organisation. He doesn't know his customers personally and they don't know him personally. The risk of this form of a professional bureaucracy is that it leads to an impersonalized way of working (interviewee #3).

Systemization can lead to street-level bureaucracy.

The open interviews revealed that several DGHs tend to mould their HRM in a system. Although beneficial on several fronts, this system thinking have several potential downsides. Based on their research on the healthcare workforces in the UK, McCann, Granter, Hassard, and Hyde (2015, p. 773) argue that "the inflexible application of metrics-based target systems to clinical and administrative tasks, including HRM operations, can result in dysfunctional outcomes for patient care and workforce morale." They warn for street-level bureaucracy. This is a situation in which traditional professional norms are reasserted informally in ways that often transgress prescribed performance systems.

Grazing at the boundaries of privacy.

HRM innovations can graze the boundaries of privacy. At their own initiative, at DGH#4, employees have created WhatsApp groups causing work-related and private-related information to blend. Free physicians tend to meet during in the evening (interviewee #5). The HRM department of DGH#7 equipped employees with activity trackers. Having access to the information in an ERP-system, requires a certain discipline of the user to ensure the privacy of the information (interviewee #2). Also the extent to which sustainable employability (e.g. interviewee #4) can be enforced runs into the limits of the privacy of the employees. According to interviewee #4, filming of the feedback of employees seems to be an adequate instrument. It seems confrontational but most people get used to it quickly.

These examples raises complex ethical questions and dilemmas where it is of secondary importance if these HRM innovations are initiated by the DGH or by the employee and if they are excepted or not. An attempt to answer these questions in this research, would not give them the attention they deserve. Therefore we refrain from answering them and just mention that they exists.

Summarizing and concluding: HRM innovations can lead to headcount reductions in DGHs and HRM departments themselves. HRM innovations may require new skillsets of employees. Some employees will be unable to keep up with the accelerating pace of changes. The implementation of e-HRM is an opportunity to delegate the data entry to the employees. The mergers of DGHs leads to scaling and with scaling comes the risk of alienation between HRM professional en employee and depersonalisation. Systemization can lead to street-level bureaucracy. HRM innovations can graze the boundaries of privacy which raises ethical questions and dilemmas.

Comparison HRM Innovations Healthcare Sector with Other Sectors in The Netherlands
This section gives a picture of HRM innovations in the healthcare sector relative to the other sectors worldwide. Trying to depict a full overview would go beyond the scope of this research so this section must be seen as an anthology.

Lans, Biemans, Verstegen, and Mulder (2007) investigated entrepreneurial learning in the *agricultural sector* in the Netherlands. Their results strengthen their claim that entrepreneurship is a rich source for learning. Although the research of the websites of DGHs as well as the open interviews revealed a broad spectrum of HRD (Human Resource Development) related HRM innovation, entrepreneurial learning was not part of it. Lans et al. (2007) identified the following environmental conditions that are crucial in the entrepreneurial learning process: (a) external interaction, (b) role related characteristics, (c) internal communication and, (d) support and guidance. We did not found evidence that these environmental conditions are not valid for DGHs and therefore suggest that entrepreneurial learning could be beneficial for DGHs.

Lambooij, Sanders, Koster, and Zwiers (n.d.) investigated the HRM-performance linkage by cooperative behaviours of employees in the Netherlands, primarily in the *educational sector*. They expected that the more HRM is aligned with an organisation's strategy, the more cooperative behaviour the employees show but found no support for their hypothesis. DGH#3 derived their corporate core values from the employee's core values so employees feel identified by them therewith taking the concept of alignment one step further. This HRM innovation was not found in other sectors in the Netherlands.

The Dutch firm Involvation developed the serious game: "The Fresh Connection". The simulated firm is modelled on a real fresh-fruit juice manufacturing company. Students work in teams, each with separate supply chain related responsibilities (Reiners & Wood, 2013). Hummel et al. (2010) report about a serious game in the *educational sector* where water management students of the HZ University of Applied Science in the Netherlands played a serious game on aquaculture. Mayer et al. (2013) give an overview of 12 serious games from different sectors in the Netherlands. This shows that serious games are not unique to the Dutch healthcare sector but are instead well represented within different sectors in the Netherlands.

Already in 2000, D. Bartram (2000, p. 261) predicted that internet recruitment "will replace paper as the default medium before very long." Yet, papers about internet recruitment a.k.a. e-recruitment in the Netherlands are scarce. As an exception, Sylva and Mol (2009) discussed e-recruitment in multinational financial services organization in the Netherlands. The websites of the DGHs, however, show that e-recruitment, in several variants, is well penetrated in the healthcare sector.

There is extant literature regarding the measurement of employee satisfaction. However, we found no literature about the *continuous* measurement of employee satisfaction as mentioned by interviewee #9.

Summarizing and concluding: A comparison of HRM innovations in the healthcare sector with other sectors in the Netherlands show that some HRM innovations are unique to the healthcare sector and some HRM innovations that were found in the open interviews were also seen in other sectors in the Netherlands.

Diffusion of HRM Innovations in Healthcare

Rogers (2003, p. 5) defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system."

Fitzgerald, Ferlie, Wood, and Hawkins (2002) examined the diffusion of innovations in healthcare in the UK. Their results illustrate the highly interactive nature of diffusion. They found no evidence of single adoption decisions. Instead, the features of context and of actors interlock to influence diffusion.

Table 6 shows the scope of the research of all HRM innovations in a healthcare setting found in literature. Most of these HRM innovations, perhaps not surprisingly, come from communities of scholars focusing on their own particular countries or regions. Research about HRM innovation in Dutch healthcare is limited. Instead, the hotspot of HRM innovations in a healthcare setting seems to be in the UK. This means that most of the results and conclusions cannot, *mutatis mutandis*, be applied to the situation in the Netherlands.

Table 6

Scope of Research of HRM Innovations in a Healthcare Setting found in the Literature

HRM innovation in a healthcare setting found in literature		
#[a]	Name	Scope of research
1	Job rotation to reduce stress and share best practices. (Radaelli et al., 2014).	Italy
2	Balance hoarding and discarding of task of professionals. (Kessler et al., 2015).	**Britain**
3	Contextual performance boosting. (Michie & West, 2004).	**England**
4	Create clarity about team leadership in self-managed cross-functional teams. (West et al., 2002).	**United Kingdom**
5	Downsizing by HPWS. (Rondeau & Wagar, 2002).	Canada
6	Employee direct voice. (Holland et al., 2013).	Australia
7	Gemba.	Various countries
8	Hybrid clinical managers as main driver of HRM innovations. (McBride & Mustchin, 2013).	**England**
9	Lean.	Various countries
10	Limit paid hours to face-to-face contact time. (Rubery et al., 2015).	**United Kingdom**
11	Serious gaming.	Various countries
12	Big Data. (Raghupathi & Raghupathi, 2014).	Various countries
13	Enhancement of patient satisfaction by improving employees' HRM system perception. (Baluch et al., 2013).	**England**
14	Innovative work behaviour by knowledge sharing. (Radaelli et al., 2014).	Italy
15	Organisational citizenship behaviour. (Xerri & Brunetto, 2013).	Australia
16	Stimulation of pro-social organisational behaviour. (Hyde et al., 2013).	**England**
17	Tripartite HRM model. (McDermott et al., 2015).	**Ireland**, Netherlands, **United Kingdom**

[a]Serial number of HRM innovation.

Note. The United Kingdom and all counties belonging to it are bolded.

The open interviews showed that there is a wide range (1 up to and including 11) of found HRM innovations per DGH. The sum of all HRM innovations from all open interviews individually equals 52 (see Table E1 up to and including Table N1) and the sum of all HRM innovations from all open interviews collectively equals 47 (see Table 3). This means that each open interview yielded a unique

set of HRM innovations. Therefore we conclude that diffusion of HRM innovations between DGHs is limited. This is in line with interviewee #8 who states that the principle of sharing best practices seems in the healthcare sector more difficult than in other sectors.

Figure 7 shows the intersection of the HRM innovations found in literature in a healthcare setting and the HRM innovations found in DGHs. With only 3 out of 61 HRM innovation in common, this intersection is almost empty.

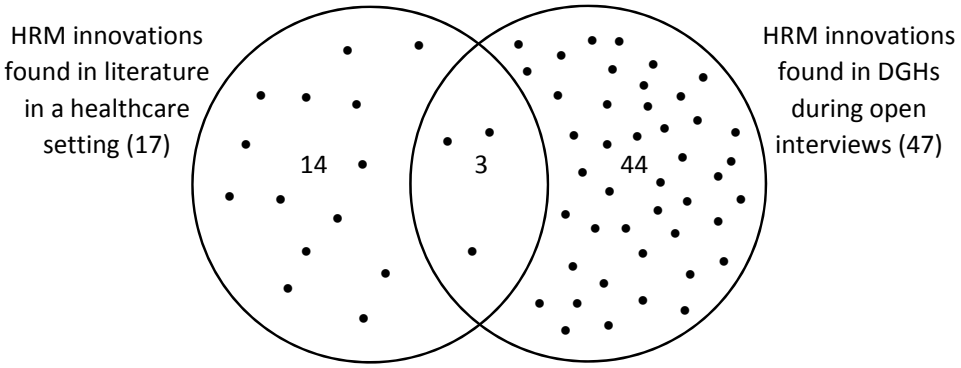


Figure 7. Distribution and Degree of Overlap of HRM Innovation Types, Extracted from Open Interviews.
Every dot in the Venn diagram represents an HRM innovation. The numbers of HRM innovations per set are between brackets at the end the set name and per subset in the diagram. Data is derived from Appendix R.

There are several possible explanations: (a) The HRM innovations in one of the sets is on a more abstract level that the other. The HRM innovations in both sets, however, seem equally concrete, so we are unable accept this explanation. (b) A number of (almost) equal, HRM innovations are differently coded. A check on this yielded no results so we are unable accept this explanation. (c) The open interviews collected HRM innovations in a recent time period whereas the years of publication of the papers range from 2002 to 2015. Since innovations are, by definition, no longer innovations as soon as they become common practice, their live span is limited. So we assume that part of the HRM innovations from the literature are common practice. In line with this, since the environment of healthcare changes, once valuable HRM innovations can become obsolete. (d) Both sets are incomplete. If there is already extensively written about an innovation, one might wonder if it still an innovation or merely a former innovation. From that point of view, a lack of extant literature can be seen as a characteristic of an innovation, making it plausible that the set of HRM innovations found in literature in a healthcare setting is incomplete. There is a wide diversity in the HRM innovations found in the open interviews. This fact in combination with limited amount of DGHs interviewed makes it plausible that also this set is incomplete.

It is often difficult to get an innovation adopted, even when it has obvious advantages, and many innovations require a period of years to become widely adopted. It is misconception to think that those advantageous innovations will sell themselves. One problem is the uncertainty that an innovation represents a superior alternative to the previous practice that it might replace (Rogers, 2003).

According to (Wong, Legnini, Whitmore, & Taylor, 2000) several factors, including the organizational turmoil, created by large numbers of mergers and acquisitions inhibit the widespread diffusion of innovations in healthcare. We see no reasons why their findings do not apply to HRM innovations.

On first sight, the sharing of HRM innovations in a coopetitive environment always seems mutually beneficial. Bouncken and Kraus (2013, p. 2060), however, called this, in a knowledge intensive environment, "the double-edged sword of coopetition". They come to the conclusion that sharing innovations: (a) advantageous under greater technological uncertainty; (b) "can trigger radical[13] innovation, (c) but at the same time can harm the extremely novel revolutionary innovation." Since we found no extremely novel revolutionary innovation in our research, point (c) is of no importance.

Summarizing and concluding: The process of diffusion of HRM innovations in healthcare is complex and highly interactive in nature. The hotspot of these HRM innovations seems to be in Great Britain. It is plausible that the set of HRM innovations found in literature in a healthcare setting, as well as the HRM innovations found in DGHs during open interviews are incomplete. The diffusion of HRM innovations between DGHs is limited. It is plausible that this is due to the current mergers. Increasing the diffusion rate by sharing HRM innovations in a coopetitive environment is probably mutually beneficial.

Possible Future HRM Developments in DGHs

The patient as a human resource.

Interviewee #8 told about a neurologist who sees the patient as a partner and together they face the challenges of the patient. So the patient has a more active role here. Malnutrition is associated with increased length of stay (Roberts et al., 2013). At DGH#4 a patient can order at any time a tailored meal. If this could contribute to reduce the length of hospital stay, the patient can be considered to be responsible for his own quick recovery.

D'Andreamatteo et al. (2015) and T. Young et al. (2004) take this concept one step further in their discussion about the adaptation of the Lean principles for healthcare. They opted that the patients themselves can be included in the improvement processes.

Beer et al. (1984, p. 1) defined HRM as "all management decisions and activities that affect the nature of the relationship between the organisation and its employees". A patient clearly is not an employee. But if he has an added value (cf. Barney, 1991) regarding his contribution to his own quick recovery and if he has an added value because he is included in the improvement process, he might be considered a human resource. If we consider patients as human resources, or perhaps more precisely, as patient/human resource combination, then the department HRM should have a role in this. Therefore, we see as a possible future HRM development in DGHs that HRM becomes responsible for the patient in his role as a human resource.

Recording as a training instrument.

Interviewee #4 mentioned In the context of *crew resource management* that a surgical operation ends with a feedback session under supervision of a process facilitator and that is feedback is filmed This seems to be an adequate instrument. It seems confrontational but most employees get used to it quickly.

The *Academisch Medisch Centrum* (Academic Medical Centre) in Amsterdam installed on 8 June a "black box" in one of his 20 operating rooms. As in airplanes, during operations with the black box all data about the patient and the operating room is tracked and analysed. The computer combines all the data and put a 'flag' at deviations which are afterwards discussed with the team. Surgeons want to increase patient safety in this way (Effting, 2016). Therefore, we see as a possible future HRM

[13] Radical innovation can be defined as: "[Innovations] that profoundly alter the basis for competition in an industry, often rendering old products or ways of working obsolete" (C. A. O'Reilly & Tushman, 2004, p. 76).

development in DGHs that collecting data about employee performance becomes more common and more accepted.

The connected mega-DGH.

Several interviewees (#1, #4, #5, #7, #8) talked about cooperation (#1, #4, #5, #7, #8) or coopetition (#1, #5). Several DGHs just concluded a merger or where in the middle of it (#3, #6, #7, #8, #9). If this trend continues, it could ultimately lead to one mega-DGH.

The open interview revealed several HRM innovation that are related to communication. For example an increase in transmural communication, but also within DGHs the connectedness seems to increase. For example by displaying employees satisfaction or by the use of social media by employees for work as well as private.

Therefore, we see as a possible future HRM development in DGHs that the increasing collaboration between DGDs in combination with the current trend of mergers, can ultimately lead to one large DGD with one HRM department.

Summarizing and concluding: Possible future HRM developments in DGHs are that: (a) HRM becomes responsible for the patient in his role as a human resource, (b) collecting data about employee performance becomes more common and more accepted, (c) the increasing collaboration between DGDs in combination with the current trend of mergers, ultimately can lead to one large DGD with one central HRM department.

Reflection on Research

Reflection on methodology.

Van den Broek – van Dongen (2014) added the category *organizational innovations* to the traditional categories *employment innovations* and *work innovations*. The open interviews yielded: 14 employment innovations, 29 work innovations and 9 organizational innovations. So 17 percent (9/(14+29+9) * 100%) of all HRM innovations found in open interviews in DGHs belong to this new category, justifying the *raison d'être* of this category although we could only identify one label in this category.

Research limitations.

There were limitations associated with this research that require some consideration. First, since this is a cross-sectional research, the situation may provide differing results if another time-frame had been chosen. A longitudinal approach should provide more generalizable results that are also more appropriate for testing causation (Maxwell & Cole, 2007).

Second, as a research method, a case study has the limitation that it cannot be generalized to fit a whole population or ecosystem (Yin, 2014).

Third, The probability that a research claim is true may depend, among others, on the flexibility of the used definitions (Ioannidis, 2005). Although considerable care was given to define innovation, the concept remains ambiguous by nature. The main stumbling block was found to be the lack of a lower limit of the definition of an innovation. As a result, some of the innovations in this paper may be perceived as not worth the term.

A famous quote of Niels Bohr (1885-1962) is: “Prediction is difficult, especially about the future.” This certainly applies to the section on “possible future HRM developments in DGHs” since the scope of this research did not permit to fully elaborate on this topic.

Research information quality.

Data saturation is reached when there is enough information to replicate the study (M. O’Reilly & Parker, 2012); (Walker, 2012) when the ability to obtain additional new information has been attained (Guest, Bunce, & Johnson, 2006) and when further coding is no longer feasible (Guest et al.,

2006). Failure to reach data saturation has a negative impact on the validity on one's research (Fusch & Ness, 2015).

Regarding the data saturation of the individual open interviews: all interviews were ended after the interviewees felt that they had no new contributions, indicating saturation. Regarding the data saturation of the open interviews in total: 39 HRM innovations were found on the websites of all DGHs (see Table 2) and 26 were obtained in the open interviews (see Table 3). Assuming that the websites contain only a subset of the HRM innovations, and assuming data saturation, we would expect more HRM innovations from the open interviews than from the websites. That the result is the opposite, indicates that data saturation was not reached and that therefore the overview of HRM innovations in DGHs is not complete.

Summarizing: Reflecting on the research, we found the addition of the category *organizational innovations* of Van den Broek – van Dongen (2014) to the traditional categories *employment innovations* and *work innovations* justified. Limitations of the research were its cross-sectional nature and the lack of a lower limit in the definition of an innovation and the failure to reach data saturation in the open interviews.

6. Conclusions

Conclusions

We conclude that regarding the current state of affairs in the field of HRM innovations in DGHs that:

DGHs have a broad spectrum of HRM innovations. A comparison of HRM innovations in the healthcare sector with other sectors in the Netherlands show that some HRM innovations are unique to the healthcare sector and that some HRM innovations that were found in the open interviews were also seen in other sectors in the Netherlands. HRM innovations are distinctive from hospitals in other countries.

The process of diffusion of HRM innovations in healthcare is complex and highly interactive in nature. There is a wide gap between the HRM innovations found in the literature and in DGH's. It is plausible that the set of HRM innovations found in literature in a healthcare setting, as well as the HRM innovations found in DGHs during open interviews are incomplete. Therefore we conclude that the diffusion of HRM innovations between DGHs is limited. It is plausible that this is due to the current mergers. Increasing the diffusion rate by sharing HRM innovations in a coopetitive environment is probably mutually beneficial.

Generally, HRM managers of DGHs feel that HRM innovations must fulfil the criteria: radical, new to the healthcare sector, and add value. It is not always clear for them if an HRM improvement deserves the label HRM innovation and the perceptions of HRM managers of DGHs about HRM innovations in DGHs deviate from the literature as well as mutually.

Part of the HRM innovations are driven by technical innovations. Most of them lead to e-HRM innovations. Several HRM innovations lead DGHs towards a holistic systems thinking.

A distinct forms of coopetition in Dutch Healthcare is transmural care, which is driven by regulatory bodies and medical professionals. Although it has several advantages, mergers can lead to incompatible and conflicting systems. It requires thorough system knowledge to cope with the continuing systemisation and scaling. Mergers can also lead to alienation between HRM professionals en employees.

HRM innovations can lead to headcount reductions in DGHs and HRM departments themselves. HRM innovations may require new skillsets of employees. Some employees will be unable to keep up with the accelerating pace of changes. The implementation of e-HRM is an opportunity to delegate the data entry to the employees. The mergers of DGHs leads to scaling and with scaling comes the risk of alienation between HRM professional en employee and depersonalisation. Systemization can lead to street-level bureaucracy. HRM innovations can graze the boundaries of privacy which raises ethical questions and dilemmas.

Possible future HRM developments in DGHs are: (a) HRM becomes responsible for the patient in his role as a human resource, (b) collecting data about employee performance becomes more common and more accepted, (c) the increasing collaboration between DGDs in combination with the current trend of mergers, ultimately can lead to one large DGD with one central HRM department.

Summarizing, we conclude that regarding the current state of affairs in the field of HRM innovations in DGHs:

- DGHs have a broad spectrum of HRM innovations that are distinctive from other sectors in the Netherlands as well as from hospitals in other countries.
- The diffusion of HRM innovations between DGHs is limited.
- The perception of HRM managers of DGHs about HRM innovations in DGHs deviate from the literature as well as mutually.
- Several HRM innovations in DGHs are driven by technical innovations.
- Several HRM innovations lead DGHs towards a holistic systems thinking.

- Mergers can lead to: (a) incompatible and conflicting systems which requires thorough system knowledge to cope with; (b) alienation between HRM professionals en employees.
- HRM innovations can: (a) lead to headcount reductions in DGHs and HRM departments themselves; (b) may require new skillsets of employees where some employees will be unable to keep up with the accelerating pace of changes; (c) graze the boundaries of privacy, raising ethical questions.
- Possible future HRM developments in DGHs are: (a) HRM becomes responsible for the patient in his role as a human resource, (b) collecting data about employee performance becomes more common and more accepted, (c) the increasing collaboration between DGDs in combination with the current trend of mergers, ultimately can lead to one large DGD with one central HRM department.

Managerial Implications and Recommendations

Incompatible and conflicting systems can be expensive and counterproductive. Since thorough systems knowledge is required to cope with the complex nature of the increasing systemisation of HRM, we doubt if this can be an ancillary task of an HRM employee. Therefore we recommend that DGHs that are affected by the complex nature of the increasing systemisation of HRM, deploy a dedicated HRM systems engineer.

Since the HRM innovations found are not only rich but also divers, we recommend that DGHs share their HRM innovations to increase their organisation performance in general, and strengthen the position of Dutch hospitals globally. *Zorg voor innoveren* (Care for innovation) is an initiative were four government organizations, together with partners, join forces to facilitate the dissemination of healthcare innovations. Their website offers a tab were these innovations can be shared (Zorg voor innoveren, 2016c). This is an example of a platform that can be used for this purpose. Boselie et al. (2002), suggest that the effect of HRM is lower in highly institutionalised sectors (e.g. hospitals) than in less institutionalised sectors. This could have a mitigating effect on the managerial implications.

Summarizing, we recommend that:

- DGHs that are affected by the complex nature of the increasing systemisation of HRM, deploy a dedicated HRM systems engineer;
- DGHs share HRM innovations with each other.

Future Research

Although we collected a large amount of HRM innovations, we did not reach data saturation in the open interviews. This justifies a replication of this research.

This research targeted specifically Dutch *general* hospitals. The wealth of the HRM innovation found in this area justifies that future research could be extended to the other categories of Dutch hospitals.

We discussed that that there comes a point that an improvement is so small that it can no longer be named an incremental innovation. Therefore, we recommend that the extant literature regarding innovations is supplemented with a definition of a threshold of an incremental innovation.

The scope of this research did not permit to fully elaborate on possible future HRM developments in DGHs. Yet, an overview of these, could give direction to HRM department in DGHs.

Summarizing, we suggest the following future research:

- replicate this research;
- extend this research towards the other categories of Dutch hospitals;
- inclusion a threshold in the definition of an innovation;
- work out possible future HRM developments in DGHs.

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Appendix A: HRM Innovations in DGHs from Websites

This appendix shows in table form all HRM innovations found on the websites of DGHs.

Table A1

HRM Innovations Found on Websites of DGHs

DGH	HRM innovation
Albert Schweitzer ziekenhuis	All applications and all correspondence regarding applications only by email (Albert Schweitzer ziekenhuis, 2015b). Skill lab with video feedback (Albert Schweitzer ziekenhuis, 2015a).
Amphia	Flexible pension: Save money in a supplementary pension scheme (Amphia, 2015).
Antonius zorggroep	Deployment of transmural coordinator to ensure a good collaboration between first line (hospital) and second line (general practitioners, home care, nursing homes) in the region (Antonius zorggroep, 2015b). The employment coach from an internal career consulting firm investigates in a conversation with the employee career and employment questions (Antonius zorggroep, 2015c). Ambition to be a learning organization (Antonius zorggroep, 2015a).
Atrium Medisch Centrum Parkstad	Not found.
Beatrix Ziekenhuis	Shift from classroom learning to blended and e-learning (Rivas Zorggroep, 2014).
Bernhoven	Job security when following a training from the hospital (Bernhoven, 2015).
Bethesda	Deployment of transmural coordinator to ensure a good collaboration between first line (hospital) and second line (general practitioners, home care, nursing homes) in the region (Bethesda, 2015a). Creation of open and direct atmosphere. Say what you do and do what you say (Bethesda, 2015b).
BovenIJ ziekenhuis	Blended learning, which means that e-learning is a digital part of the overall training package for clinical courses, training days, skills and practical tests in the skills lab (BovenIJ ziekenhuis, 2015).
Canisius-Wilhelmina Ziekenhuis	Job alert: an applicant receives an email when a job comes available that fits his profile (Canisius-Wilhelmina Ziekenhuis, 2015a). Mobility day: employees from other organizations have the opportunity to look if they would benefit from a career switch (Canisius-Wilhelmina Ziekenhuis, 2015b).
Catharina Ziekenhuis	E-learning and virtual training (Catharina Ziekenhuis, 2015).
Deventer Ziekenhuis	Personal life budget. Multiple-choice system for employment (Deventer Ziekenhuis, 2015).
Diaconessenhuis	Cooperation with high schools (Diaconessenhuis, 2015).
Elkerliek Ziekenhuis	Combination of classical classroom training with e-learning (Elkerliek ziekenhuis, 2015a).

(continued)

DGH	HRM innovation
Flevoziekenhuis	Multiple-choice system for employment. It lets an employee adjust some of the terms on personal circumstances. For example, to exchange money or time to contribute to a new bike, a membership in a union or professional association or fiscally attractive travel expenses. The hospital has its own skills lab. All employees attend an induction program. To keep employees healthy, the can participate in a "Balance@Work" program, a running group, Weight Watchers group, massages and meditation and a discount on a fitness club (Flevoziekenhuis Almere, 2015).
Gelre ziekenhuizen Apeldoorn	E-learning (Gelre ziekenhuizen Apeldoorn, 2015).
Gelre ziekenhuizen Zutphen	Transfer of learning: Before, during and after a learning route, the transfer can be increased by the manager, the teacher or the employee (Gelre ziekenhuizen Zutphen, 2015).
Gemini Ziekenhuis	E-learning and indoor training (Noordwest Ziekenhuisgroep, 2015d).
Groene Hart Ziekenhuis	Multiple-choice system for employment: this allows the employee to make the choices that fit his phase in life. To keep employees healthy, contribution of fitness club is compensated (Groene Hart Ziekenhuis, 2015).
HagaZiekenhuis	Cooperation with other hospitals regarding training (HagaZiekenhuis, 2015).
Havenziekenhuis Rotterdam	Keep breasted of new job offerings via LinkedIn and digital newsletter (Havenziekenhuis Rotterdam, 2015). Aunt Toozz project: In this project, students from 8th grade in primary school get acquainted with healthcare through a drama class (Havenziekenhuis Rotterdam, 2015).
Van Weel-Bethesda Ziekenhuis	E-learning (Van Weel-Bethesda Ziekenhuis, 2015).
IJsselland ziekenhuis	Personal Life stage budget for spending targets in time. Multiple-choice system for employment: this allows the employee to make the choices that fit his phase in life (IJselland ziekenhuis, 2015b). Recruitment of young students by internet tools: Job carousel, Aunt Toozz, and "*Herrie in het hospitaal*" (rumble in the hospital). This is a replacement of traditional internships (IJselland ziekenhuis, 2015a).
Ikazia	Multiple-choice system for employment: this allows the employee to make the choices that fit his phase in life (Ikazia, 2015a). Introduction booklet on the website for new employees, protected by a password (Ikazia, 2015b).
Isala	Mobile skills lab (Stichting Holding Isala klinieken, 2015).
Isala-Diaconessenhuis	Employees of the wards have in the project "Productive Ward" opportunities to improve their work, with the result that they have more time for direct patient care (Isala Diaconessenhuis, 2015).

(continued)

DGH	HRM innovation
Jeroen Bosch Ziekenhuis	Introduction information on the website for new employees, protected by a password (Jeroen Bosch Ziekenhuis, 2015b). Rules and regulations which are an obligatory part of the employment contract are publically available on the internet (Jeroen Bosch Ziekenhuis, 2015b). Flexible childcare (this service must be paid for) (Jeroen Bosch Ziekenhuis, 2015a).
Kennemer Gasthuis	Lead-time reduction for recruitment and selection. Pilot project to stimulate healthy living of employees (Stichting Zaans Medisch Centrum, 2015).
Laurentius Ziekenhuis	Co-development "Serious game": In a fictitious hospital, employees learn what the added values of their colleagues are and how they must work together as a team for maximum results (Laurentius Ziekenhuis Roermond, 2015b). Flexible pool of employees by working with different forms of contracts like fixed, flexible and freelance to become an agile organisation (Laurentius Ziekenhuis Roermond, 2015a).
Maasziekenhuis Pantein	Requirement of voluntary workers (Maasziekenhuis Pantein, 2015).
MC Zuiderzee	Not found.
Meander Medisch Centrum	Quality register: Employees are expected to collect yearly a certain amount of study points that can be gained by participation in courses and trainings (Meander medisch centrum, 2015).
Medisch Centrum Alkmaar	Flexible working conditions (Noordwest Ziekenhuisgroep, 2015a). Professional assistance in disruption of work-life balance or shocking events (Noordwest Ziekenhuisgroep, 2015b). Employees are responsible for their own development. E-learning. Biannual measurement of employee satisfaction (Noordwest Ziekenhuisgroep, 2015c).
Medisch Centrum Haaglanden	Combination of working and learning (Medisch Centrum Haaglanden, 2015).
Medisch Centrum Leeuwarden	Not found.
Medisch Spectrum Twente	To keep employees healthy, contribution of fitness club is compensated and traveling by bike is stimulated (Medisch Spectrum Twente, 2015a). Private training institute (Medisch Spectrum Twente, 2015b).
Nij Smellinghe	Employee satisfaction is measured and displayed in performance indicators in a quality window that is publicly available (Nij Smellinghe, 2015).
Onze Lieve Vrouwe Gasthuis	Teaching Hospital with various rooms equipped with audio-visual equipment. The skills labs (wetlab and drylab) and the videoconferencing room are managed by an amanuensis. In skills labs of the Teaching Hospital, staff can train skills which they will encounter in practice (Onze Lieve Vrouwe Gasthuis, 2015b). Medical library (Onze Lieve Vrouwe Gasthuis, 2015a).

(continued)

DGH	HRM innovation
Refaja Ziekenhuis	Indoor training (Refaja Ziekenhuis, 2015).
Reinier de Graaf Groep	Lean-improvements. Application tips on website. Offering for open application on website. Job alert on internet: the applicant receives an email when there is a job available that matches his profile (Reinier de Graaf Groep, 2015).
Rijnland Ziekenhuis	Support team: for employees who are confronted with aggression or dramatic situations like the dying of a child (Rijnland Ziekenhuis, 2105).
Röpcke-Zweers	Multiple choice system benefits (including compensation expenses union membership dues) (Saxenburgh Groep, 2015).
Ruwaard van Putten Ziekenhuis	Not found.
Scheper Ziekenhuis	Not found.
Sint Franciscus Gasthuis	Transmural information sharing of incidents. Shared flex pool: sharing of flex workers by several hospitals. Sustainable employability: Employees have to work longer because of the raising the retirement age. Topics are: fitness, non-smoking, healthy food, weight control (Sint Franciscus Vlietland Groep, 2014).
Sint Lucas Andreas Ziekenhuis	Knowledge centre with a medical library, practice rooms, classrooms and computer workstations (Sint Lucas Andreas Ziekenhuis, 2015). To keep employees healthy, they get a discount on a fitness membership (Sint Lucas Andreas Ziekenhuis, 2105).
Slingeland Ziekenhuis	Job alert on internet: the applicant receives an email when there is a job available that matches his profile (Slingeland Ziekenhuis, 2015).
Slotervaartziekenhuis	Multiple-choice system for employment. It lets an employee adjust some of the terms on personal circumstances (Slotervaartziekenhuis, 2015a). Working and learning together (Slotervaartziekenhuis, 2015b).
Spaarne Ziekenhuis	Working and learning together (Spaarne Ziekenhuis, 2015). For the staff advisors within the department, a training program has started with the aim of supporting them in their development from an administrative expert towards a strategic advisor for management. Absenteeism tracking system in which managers can register employee sickness and recovery (Spaarne Ziekenhuis, 2011).
St. Anna Ziekenhuis	Spending on innovation is 0% (St. Anna Ziekenhuis, 2015).
St. Elisabeth Ziekenhuis	Talent management bank: A platform for the exchange of talents between participating hospitals. This leads to job enrichment of the employee (St. Elisabeth Ziekenhuis, 2015). Meet the hospital: The hospital organizes different activities where interested parties can meet employees and have the opportunity get to know better the hospital better. There are regular orientation visits for secondary schools. The hospital participates in educational and professional markets and on regional job fairs. Furthermore, the hospital maintains at least once every two years an open day.
St Jansdal Ziekenhuis	Not found.

(continued)

DGH	HRM innovation
St. Jans Gasthuis	Not found.
Streekziekenhuis Koningin Beatrix	Keep breasted of new job offerings via Facebook, Twitter, and LinkedIn. flexible reward: Employees can, within a framework, flexibly compile their own benefits package. For example, for commuting costs, and a bicycle plan (Streekziekenhuis Koningin Beatrix, 2015).
Tjongerschans	Indoor training (Tjongerschans, 2015b). Bedside teaching (Tjongerschans, 2015a). Skills lab with manikins and phantoms in order to mimic the overall care of patients (Tjongerschans, 2015c).
't Lange Land Ziekenhuis	Not found.
TweeSteden Ziekenhuis	Giving students secondary education a guided tour (TweeSteden Ziekenhuis, 2015b). Cafeteria system: An employee can use a (part of) his gross income, his end-of year bonus or overtime for tax-friendly purposes, such as tax-free allowances for travel expenses or internet, extra retirement savings and participation in the company fitness or bicycle. And they get attractive discounts on a number of products and services (TweeSteden Ziekenhuis, 2015a).
VieCuri Medisch Centrum	Vitality policy: to promote sustainable employability up to retirement age (VieCuri Medisch Centrum, 2015a). E-learning and skill lab (VieCuri Medisch Centrum, 2015b).
Vlietland	Formalized introduction program for new employees: Monthly introductory meeting is organized to introduce new employees to the hospital (Vlietland, 2105).
Waterlandziekenhuis	Not found.
Westfriesgasthuis	Sharing knowledge and experience. Using Lean methodology. Lean is a way of thinking, doing and sharing. It gives employees at all levels, the opportunity to look at improvement in a standardized way. In the skills lab skills can be practiced (Westfriesgasthuis, 2015).
Wilhelmina Ziekenhuis	Not found.
Zaans Medisch Centrum	Working from a Lean management philosophy, providing only those services that are in the best interest of the patient (Zaans Medisch Centrum, 2015a). Learning centre that is accessible to all employees (Zaans Medisch Centrum, 2015b).
Ziekenhuis Amstelland	Working in small teams (Ziekenhuis Amstelland, 2015b). Stage of life awareness (reaction to expected longer working of employee) (Ziekenhuis Amstelland, 2015a).
Ziekenhuis De Sionsberg	Not found.

(continued)

DGH	HRM innovation
Ziekenhuis Gelderse Vallei	E-learning (Ziekenhuis Gelderse Vallei, 2015c). Multiple-choice system for employment (Ziekenhuis Gelderse Vallei, 2015b). Flex working: Working as a flex worker gives a high amount of freedom with the planning of the workweek. The employees decides on which days and how many shifts he will do (Ziekenhuis Gelderse Vallei, 2015a).
Ziekenhuis Lievensberg	The applicant (already working for the hospital as well as external applicants) can create an account to place his curriculum vitae and to manage his applications (Elkerliek ziekenhuis, 2015b).
Ziekenhuis Rivierenland	Introduction for new employees via a presentation on the internet, protected by a password (Ziekenhuis Rivierenland, 2015).
ZorgSaam Ziekenhuis	sTimul Netherlands, care-ethical lab: Training by role plays to confront caretakers with their own behaviour and thereby learning to do it differently (sTimul Nederland, 2015).
Zuwe Hofpoort Ziekenhuis	Multiple-choice system for employment. To keep employees healthy, they get a discount on a fitness membership (Zuwe Hofpoort Ziekenhuis, 2015).
Zuyderland	Vacancy emailing: people who are interested in a job, receive weekly an email with vacant positions (Zuyderland, 2015). Library of hospital offers e-books that are accessible from the workplace (Atrium medisch centrum, 2015).

Appendix B: Reviewed Papers

This appendix shows an overview of the papers found by searching on key words. The papers are sorted first in order of key word and second on the scope of research.

Table B1

Papers Found by Key Word Search

	Key word[a]		Topic[a]			
Paper	HRM	HRM innovations	Healthcare	Social innovation	IWB	Scope of research
Van den Broek-van Dongen (2014) Taking care of innovation: The HRM innovation process in healthcare organizations.	✓	✓	✓	×	×	The Netherlands
Sriniasa & Chandwani (2014) HRM innovations in rapid growth contexts: the healthcare sector in India.	✓	✓	✓	×	×	India
Macfarlane, Greenhalgh, Humphrey, Hughes & Pawson (2009) A case study of strategic human resource in healthcare.	✓	✓	✓	×	×	England
Michie & West (2004) Managing people and performance: an evidence based framework applied to health service organization.	✓	✓	✓	×	×	England
Janssen (2004) How fairness perceptions make innovative behaviour more or less stressful.	✓	✓	✓	×	✓	The Netherlands
Rondeau & Wagar (2002) Reducing the Hospital Workforce: What Is the Role of Human Resource Management Practices?	✓	✓	✓	×	×	Canada
West, Borrill, Dawson, Brodbeck, Shapiro & Haward (2003) Leadership clarity and team innovation in healthcare.	✓	✓	✓	×	×	United Kingdom
Aagaard & Andersen (2014) How can HR practices support front-end innovation and increase the innovativeness of companies.	✓	✓	×	×	×	Not applicable
Bondarouk & Olivas-Lujan (2014) Unlocking Social Innovation with HRM and Technology.	✓	✓	×	×	×	Unknown
Bos-Nehles & Van Riemsdijk (2014) Innovating HRM Implementation; The Influence of Organisational Contingencies on the HRM Role of Line Managers.	✓	✓	×	×	×	The Netherlands
Curran & Walsworth (2014) Can you pay employees to innovate? Evidence from the Canadian private sector.	✓	✓	×	×	×	Canada
De Leede & Kraijenbrink (2014) The Mediating Role of Trust and Social Cohesion in the Effects of New Ways of Working.	✓	✓	×	×	×	The Netherlands
De Leede & Looise (2005) Innovation and HRM; Towards an Integrated Framework.	✓	✓	×	×	×	The Netherlands
Dorenbosch et al. (2005) On-the-job Innovation; The Impact of Job Design and Human Resource Management through Production Ownership.	✓	✓	×	×	×	The Netherlands
Meijerink (2014) Practicing Social Innovation; Enactment of the Employee Organization Relationship by Employees.	✓	✓	×	×	×	Not applicable
Mumford (2000) Managing creative people; strategies and tactics for innovation.	✓	✓	×	×	×	Not applicable
Mumford, Scott, Gaddis & Strange (2002) Leading creative people: Orchestrating expertise and relationships.	✓	✓	×	×	×	Not applicable
Ruël & Lake (2014) Global Talent Management in MNCs in the Digital Age.	✓	✓	×	×	×	Not applicable
Shipton, Fay, West, Patterson & Birdi (2005) Managing People to Promote Innovation.	✓	✓	×	×	×	United Kingdom
Steijn & Tijdens (2005) Workers and Their Willingness to Learn; Will ICT-Implementation Strategies and HRM Practices Contribute to Innovation.	✓	✓	×	×	×	The Netherlands
Stirpea, Trullenb & Bonache (2013) Factors helping the HR function gain greater acceptance for its proposals and innovations.	✓	✓	×	×	×	Spain

(continued)

Paper	Key word[a] HRM	HRM innovations	Topic[a] Healthcare	Social innovation	IWB	Scope of research
Van der Heijde & Van der Heijden (2014) Employability and Social Innovation: The Importance of and Interplay between Transformational Leadership and Personality.	✓	✓	×	×	×	The Netherlands
Veenendaal & Kearney (2014) Firm-level creative capital and the role of external labour.	✓	✓	×	×	×	The Netherlands
Wolfe, Wright & Smart (2006) Radical HRM innovation and competitive advantage: the moneyball story.	✓	✓	×	×	×	United States
Baer, Oldham, Cummings (2003) Rewarding creativity: when does it really matter?	✓	✓	×	×	✓	Unknown
Borins (2001) Encouraging innovation in the public sector.	✓	✓	×	×	✓	Not applicable
Bonesso & Tintorri (2014) Bridging the fields of innovative behaviour and human resource management: a systematic review and future research directions.	✓	✓	×	×	✓	Not applicable
Damanpour & Schneider (2009) Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers.	✓	✓	×	×	✓	United States
De Spiegelaere (2014) The Employment Relationship and Innovative Work Behaviour.	✓	✓	×	×	✓	Not applicable
Fernandez (2010) Using employee empowerment to encourage innovative behavior in the public sector.	✓	✓	×	×	✓	United States
Ramamoorthy et al. (2005) Determinants of Innovative Work Behaviour: Development and Test of an Integrated Model.	✓	✓	×	×	✓	Ireland
Cooke & Bartram (2015) Human resource management in healthcare and elderly care: current challenges and toward a research agenda.	✓	×	✓	×	×	Various
Gospel (2015) Varieties of qualifications, training, and skills in long-term care: a German, Japanese, and UK comparison.	✓	×	✓	×	×	Germany, Japan, United Kingdom
Kessler, Herdon & Dopson (2015) Professionalization and expertise in care work: the hoarding and discarding of tasks in nursing.	✓	×	✓	×	×	Britain
Boselie, Paauwe & Richardson (2002), HRM, institutionalisation and organisational performance.	✓	×	✓	×	×	The Netherlands
McCann, Granther, Hassard & Hyde (2015) Limitations of the targets culture in managing UK healthcare workforces.	✓	×	✓	×	×	United Kingdom
McDermott, Fitzgerald, van Gestel & Keating (2015) From bipartite to tripartite devolved HRM in professional service contexts: evidence from hospitals in three countries.	✓	×	✓	×	×	Ireland, The Netherlands, United Kingdom
Rubery, Grimshaw, Hebson & Ugarte (2015) Time as contested terrain in the management and experience of domiciliary care work in England.	✓	×	✓	×	×	England
Balucha, Salge & Piening (2013) Untangling the relationship between HRM spital performance; the mediating role of attitudinal and behavioural HR outcomes.	✓	×	✓	×	×	England
Bartram & Dowling (2013) An international perspective on human resource management and performance in the healthcare sector: toward a research agenda.	✓	×	✓	×	×	Australia, China, United Kingdom
Holland, Allen & Cooper (2013) Reducing burnout in Australian nurses; the role of employee direct voice and managerial responsiveness	✓	×	✓	×	×	Australia
Hyde, Harris & Boaden (2013) Pro-social organisational behaviour of healthcare workers.	✓	×	✓	×	×	England
Currie, Burgess & Hayton (2015) HR practices and knowledge brokering by hybrid middle managers in hospital settings: the Influence of professional hierarchy.	✓	×	✓	×	×	England
Townsend & Wilkinson (2010) Managing under pressure: HRM in hospitals.	✓	×	✓	×	×	World

(continued)

Paper	Key word[a] HRM	HRM innovations	Topic[a] Healthcare	Social innovation	IWB	Scope of research
Townsend, Lawrence & Wilkinson (2013) The role of hospitals' HRM in shaping clinical performance: a holistic approach.	✓	×	✓	×	×	Australia
McBride & Mustchin (2013) Crowded out; The capacity of HR to change healthcare work practices.	✓	×	✓	×	×	England
Xerri & Brunetto (2013) innovative behaviour; the importance of employee commitment and organisational citizenship behaviour.	✓	×	✓	×	×	Australia
Bartram, Stanton & Leggat (2007) Lost in translation exploring the link between HRM and performance in healthcare.	✓	×	✓	×	×	Australia
De Jonge, Mulder & Nijhuis (1999) The incorporation of different demand concepts in the job demand-control model.	✓	×	✓	×	×	The Netherlands
Länsisalmi, Kivimäki, Aalto & Ruoranen (2006) Innovation in healthcare; a systematic review or recent research.	✓	×	✓	×	×	Finland
Mauno, Kinnunen, Mäkikangas & Nätti (2005) Psychological consequences of fixed-term employment and perceived job insecurity among healthcare staff.	✓	×	✓	×	×	Finland
Abstein et al. (2014) Exploring HRM Meta-Features that Foster Employees' Innovative Work Behaviour in Times of Increasing Work–Life Conflict.	✓	×	×	×	×	Germany
Basset-Jones (2005) The Paradox of Diversity Management, Creativity and Innovation.	✓	×	×	×	×	Not applicable
Bondarouk & Looise (2005) HR Contribution to IT Innovation Implementation; Results of Three Case Studies.	✓	×	×	×	×	The Netherlands
Bondarouk, Marsman & Rekers (2014) HRM, Technology and Innovation; New HRM Competences for Old Business Challenges.	✓	×	×	×	×	The Netherlands
Yeşil (2014) Exploring the links among organisational commitment, knowledge sharing and innovation capability in a public organisation.	✓	×	×	×	×	Turkey
Wang & Zatrick (2015) Firm-level creative capital and the role of external labour.	✓	×	×	×	×	Canada
Radaelli, Lettieri, Mura & Spiller (2014) Knowledge sharing and innovative work behaviour in healthcare: A micro-level Investigation of direct and indirect effects.	×	×	✓	×	✓	Italy
Christensen, Bohmer & Kenagy (2000) Will disruptive innovations cure healthcare?	×	×	✓	×	×	United States
Černe (2013) Multilevel approach in examining non-technological innovation.	×	×	×	×	×	Slovenia, Spain, South Korea
Hislop (2003) Knowledge integration processes and the appropriation of innovations.	×	×	×	×	×	United Kingdom, France, Sweden
Nijhof & Paashuis (2014) Principles to Guide Employees to Next Level Innovation Cycles; How Organisations Can Develop New Sustainable Business.	×	×	×	×	×	Not applicable
Yap, Chai & Lemaire (2005) An Empirical Study on Functional Diversity and Innovation in SMEs.	×	×	×	×	×	Singapore
Abetti (2005) Case Study The Creative Evolution of Steria; From French Venture to European Leader without Loss of Entrepreneurial Spirit and Control.	×	×	×	×	×	France

[a]✓: Found; ×: Not found.

Appendix C: Interview Protocol

This appendix gives: (a) a motivated order of the interview topics, (b) the interview protocol, (c) a list of equipment the interviewer needs bring to the interview, (d) contact information and resumes of the HRM innovations found on the websites for the hospitals visited.

Ordering of Topics

Table C1

Ordering of Topics and Subtopics for the Interview Protocol

Topics with subtopics	Rank	Motivation
Grand tour question	1	Breaks the ice.
Employment innovations	2	Since this topic is related to more traditional employment issues, also interviewees with low innovation awareness should be able to tell something about this topic.
E-HRM	2.1	Since the websites of the hospitals focused on this subtopic, this one comes first.
Talent management	2.2	Talent and reward management equally difficult or contentious but from a process perspective, reward comes after talent.
Reward management	2.3	Talent and reward management equally difficult or contentious but from a process perspective, reward comes after talent.
Work innovations	3	This is the less traditional pendant of employment innovations and therefore possibly more difficult.
Employee empowerment	3.1	All three subtopics are equally difficult or contentious.
Job design	3.1	All three subtopics are equally difficult or contentious.
Working conditions	3.1	All three subtopics are equally difficult or contentious.
Organizational innovations	4	This topic covers all issues that are not discussed in the employment innovations, nor in the organizational innovations. This argument sets the topic of work innovations automatically to a lower rank.
Culture	4.1	All three subtopics are equally difficult or contentious.
Strategic position HRM	4.1	All three subtopics are equally difficult or contentious.
Communication	4.1	All three subtopics are equally difficult or contentious.

Note. Ordering from those that are least difficult or contentious to those that are most difficult.

List of Equipment

This list of equipment guaranties that no essential equipment can be forgotten:

- memo recorder with spare batteries,
- interview protocol,
- pen, spare pen and notebook,
- contact information interviewee,
- clock.

Interview Protocol

- Switch on memo recorder and state that interview is recorded.
- Introduce yourself, your study. What is an open interview?
- Duration: 1 ½ hour.
- Ask interviewee to introduce her/himself.
- Stress that opinion is important.

- Grand tour question: "Can you give an example of a recent HRM innovation at this hospital?

- Employment innovations (related to more traditional employment issues).
  - E-HRM.
  - Talent management.
  - Reward management.

- Work innovations (related to the design of work).
  - Employee empowerment.
  - Job design.
  - Working conditions.

- Organizational innovations (related to a broader category than employment or work innovations).
  - Culture.
  - Strategic position HRM.
  - Communication.

- Thank you/ bottle of wine.
- Do you have any questions or remarks?
- Will you check if I paraphrased this interview correctly?
- Would you like to have a copy of the finished report?

Appendix D: Letter, Request for Participation

This appendix shows the text for the participation request letter. The name and address information of the receiver are imported from an mdb-file (Microsoft access Database).

Subject: one interview for a country-wide benchmark into HRM innovations in Dutch general hospitals

Dear [NAME]

Through this letter I would like to invite you as to participate in the qualitative research led the HRM research department at the University of Twente, into innovative HRM practices in Dutch general hospitals.

The research aim is to explore best practices, success and risk factors and conditions, and lessons that can be learnt from the diversity of innovations related to people management in general hospitals. Upon finalizing the research, the report about best practices in HRM innovations, their success and risk factors, and conditions will be shared with all interviewees.

Research methods: one of the members of the dedicated research team is conducting an open one-and-a-half hour interview per hospital. After that, results are analysed anonymously to extract best practices across Dutch general hospitals.

Confidentiality and research ethics: There is no intention to explicitly mention and/or disclose any information about a particular hospital and/or an interviewee. All results will be anonymized and aggregated to the level of "lessons learnt".

Therefore I kindly ask you to find *one-and-a-half hour* of your accessibility to welcome one of the members of the dedicated research team, who will visit you at the convenient location and time.

I am approaching more than 70 Dutch general hospitals, where from we have already a large commitment.

To finalize this invitation, I would like to bring to your notice that it is not a commercial research, it is not launched by any order. It is purely my own research initiative, inspired by latest HRM developments in hospitals and in the healthcare in general. Should you agree to participate, you will receive a preliminary list of discussion topics in advance.

One of the members of the dedicated research team will take the liberty to contact you or your secretary by phone within two weeks, to find out whether you want to join this research initiative, and to clarify some extra issues about this project if you have questions.

I hope for a nice dialogue with you,

Prof. dr. Tanya Bondarouk

Chair of the HRM department of the University of Twente

Dedicated research team: Marcia Kremers, Marco Rijkeboer and Juliane Winkler

Appendix E: Open Interview DGH#1

The first section of this appendix shows in the first column the Dutch interview report that is derived from the interview transcription and corrected by the interviewee. The second column shows the English translation with the found HRM innovations serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Dutch	**English**
Introductie Rondlopend in ziekenhuis #1, viel me op dat de atmosfeer open en ontspannen is. Verschillende medewerkers vroegen me of ze me van dienst konden zijn. Op de muur gemonteerde beeldschermen toonden de werkroosters voor het medisch personeel. Het interview is in de kantine gehouden wat de open atmosfeer bevestigd. De geïnterviewde is nu 6 jaar P&O-consultant voor ziekenhuis #1 en hij/zij was gevraagd om op ad interim-basis hoofd van de afdeling P&O te worden. Zijn/haar definitie van innovatie is dat het is gerelateerd aan nieuwe dingen.	*Introduction* Walking around in DGH#1 before the interview, I noticed that the atmosphere was open and relaxed. Several medical personnel asked me if they could be of assistance. Several wall mounted flat screens showed work schedules for the medical personnel. The interview was conducted in the canteen, which confirms the open atmosphere. The interviewee is HR consultant for DGH#1 for 6 years now and (s)he was asked to be ad interim head of the department PO&O. Her/his definition of innovation is that it is related to new things.
Ge*percipieerde mate van innovatie* De gezondheidszorg als een sector is niet bij uitstek de plaats waar innovatie plaatsvindt. Dit is ook afhankelijk van het soort sector. Het innovatievermogen van een academisch ziekenhuis is bijvoorbeeld groter dan die van een algemeen ziekenhuis en kan niet worden vergeleken met een ziekenhuis #1 welk een van de kleinste ziekenhuizen in Nederland is. Aan het eind van het interview komt de geïnterviewde echter tot de conclusie dat ziekenhuis #1 waarschijnlijk toch innovatiever is dan hij/zij in eerste instantie dacht.	*Perception of HRM innovation* The healthcare as a sector is not is pre-eminently the place where innovations take place. This is also dependent on the type of sector. An academic hospital e.g. is more innovative than a general hospital and it cannot be compared to DGH#1, which is one of the smallest hospitals in the Netherlands. Although at the end of the interview, the interviewee comes to the conclusion that DGH#1 is perhaps more innovative that (s)he initially thought.
Zorgketen Ziekenhuis #1 valt, samen met 4 zorgcentra, onder een overkoepelende organisatie. De geïnterviewde beschouwt dit als een innovatie omdat deze vorm van samenwerking niet standaard is. Het kan worden gezien als een keten van zorg. Vanuit P&O-perspectief heeft dit het voordeel van de grote getallen.	*Innovation 18: Chain of care.* DGH#1 resides under an overarching organisation. The interviewee considers this an innovation because it is not standard to enter this kind of collaboration. It can be seen a chain of care. This has from an HRM perspective the advantage of large numbers.

P&O-zakenpartner

Op P&O-gebied ondergaat ziekenhuis een reeks van veranderingen. Wat je nu ziet is een centrale afdeling met personeelsadministratie en personeelsadviseurs. Ziekenhuis #1 wil een andere P&O-structuur implementeren: P&O wordt dichter bij de lijn en dichter bij de managers gebracht.

Daarmee verandert de rol van een P&O-adviseur naar de rol van P&O-partner voor de managers. De ontwikkeling van deze rolverandering is nog gaande. Deze verandering vraagt veel van de mensen die al jaren op dezelfde manier werken. Naast het beantwoorden van standaardvragen als: "voor hoelang kan ik een contract tekenen?" en "Welk salaris?", denkt de P&O-zakenpartner met de manager mee over strategisch P&O: wat is er gaande op de afdeling, wat is zijn stip op de horizon, hoe ga je dat implementeren? Dit is een grote nieuwe uitdaging.

Korte communicatielijnen & Gemba principe

Het onderwerp communicatielijnen is niet nieuw. Het ziekenhuis heeft korte lijnen met bijvoorbeeld het bestuur. Zij lopen rond op de werkvloer en praten met mensen zodat ze weten wat er gaande is op de werkvloer. De communicatielijnen tussen het ziekenhuis en de zorgcentra worden als te lang gezien en P&O wil deze verkorten. Korte communicatielijnen verhogen de goede werkrelaties mogelijk verder.

E-*leren*

De website van ziekenhuis #1 toont het onderwerk e(lektronisch)-leren. De geïnterviewde is bekend met dit onderwerp maar benadrukt dat hij/zij niet verantwoordelijk is voor training. In zijn algemeenheid neemt de rol van digitalisatie toe. De P&O-afdeling is intensief met dit onderwerp bezig. Eén voorbeeld zijn de digitale personeelsdossiers, een ander voorbeeld is de digitale leeromgeving. Een verpleegkundige, maar ook stafleden, moeten op regelmatige basis hun kennis en vaardigheden bijwerken om geautoriseerd en competent te blijven. Om de

Innovation 19: HRM business partner.

In the HR area, DGH#1 is going through a number of developments. What you see now is a central department with personnel administration, and personnel advisors. What they want to do is implement another HRM structure: HRM is brought closer the line, closer to the managers.

Therefore the role of HRM advisor changes to the role of HRM partner for the managers. So they are going to shape this role in a different way and this development is in progress. This change is demanding for the people who are doing something the same way for several years. Besides the standard questions like: "for how long can I sign a contract?" and "What salary?", the HRM business partners also thinks with the manager about strategic HRM: what is going on the department, what is his dot on the horizon, how are you going to implement this? This is a great new challenge.

Innovation 7: Gemba.
& short communication lines

The topic of short communication lines is not new. The hospital has short lines with e.g. the board of directors. They walk around the work floor and talk to people so they know what is happening in the workplace. The communication lines between the hospital and the nursing homes are perceived too long and HRM want to shorten them. Short communication lines may increase the pleasant working relationships further.

Innovation 20: E-*learning via internet.*

The website of DGH#1 mentions the topic e-learning. The interviewee knows about this topic but stresses that (s)he is not responsible for training. In general the role of digitalization is increasing. HRM department is working intensively on this topic. One example is digital personnel files, another example is the digital learning environment. A nurse but also a staff members must on a regular base brush up their skills to remain authorized and proficient. Once in while the training department has to reassess what is needed to give this trainings.

They are working on a digital learning

zoveel tijd moet de afdeling training inschatten wat nodig is om deze trainingen te geven.

Zij werken aan een digitale leeromgeving waar de manager een trainingsportfolio kan inzien. Deze omgeving toont welke cursussen zijn voltooid en welke nog moeten worden gevolgd. De medewerker ziet een pop-up wanneer hij aan een training moet deelnemen zodat hij zich hier voor kan inschrijven.

Lean

Het is voor ziekenhuizen een uitdaging om financieel gezond te blijven en de kwaliteit hoog te houden. Dit betekent dat je zorgvuldig moet overwegen hoe je je geld besteed. Dit gaat ook op P&O. Geld uitgegeven aan P&O kan niet worden besteed aan handen aan het bed. Een extra P&O-medewerker betekent een verpleegkundige minder. Door “lean en mean” te werken, kan meer worden gedaan met minder mensen en digitalisering kan hierbij behulpzaam zijn.

Lean, specifiek als een managementinstrument is nog niet geïmplementeerd maar dit gaat in de toekomst mogelijk gebeuren want de senior managers worden zich meer bewust van dit instrument. Men moet echter voorzichtig zijn dat Lean niet slechts een hype wordt en dat het personeel hier geen interesse in heeft. Zij hebben soms de indruk dat Lean slechts een excuus is om hun harder te laten werken. Maar ook de digitalisering van P&O moet zorgvuldig worden uitgevoerd en op een manier dat het personeel de toegevoegde waarde voor hun kan zien.

Communicatie

Communicatie is het magische woord om duidelijk te maken dat digitalisering zowel voor het ziekenhuis als de medewerkers gunstig is. Maar ook duidelijke uitleg en de verzekering dat er iemand beschikbaar is als men een probleem heeft dat men niet zelf kan oplossen. De geïnterviewde is beschikbaar voor vragen over het systeem, bijvoorbeeld over hoe het werkt of wat het toevoegt voor de medewerker. Maar voor eenvoudige zaken, zoals het vergeten zijn van een wachtwoord, welke toets moet worden ingedrukt, kan de medewerker ook naar de

environment where the manager can see the training portfolio. It shows which courses are completed by an employee and which courses still has to be followed. A pop-up appears when the employee has to participate in a training so the employee can subscribe to a training.

Innovation 9: Lean.

It is for hospitals a challenge to remain financially sound and keep the quality high. That means you carefully must consider how you should spend your money. This is also true for HRM. Money that is spent on HRM cannot be spent on care at the bedside. This means that an extra HRM employee means one nurse less. By working smart and “lean and mean” one can do more with less people and one way to accomplish that is to employ all digital means available.

Lean, specifically as a management tool is not yet implemented but perhaps in the future. The awareness of this tool is increasing at the level of senior managers. One should be careful that Lean is not becoming just a hype and that the people do not care about it. They perceive Lean sometimes just as an excuse to let them work harder. But also the HRM digitalisations should be handled carefully and in the way the work force can see the added value of it.

Communication

Communication is the magic word to make clear that HRM digitalisations is beneficial for the hospital as well as for the employees. But also clear explanations and assurance that there is someone available when they have a problem they can’t solve by their own. The interviewee is available for questions about the system, e.g. how does it work, how can it help me. But for simple issues, like the loss of a password, which button do I need to press, employees can also go to personnel administration.

It is a challenge to design the several

personeelsadministratie.

Het is een uitdaging om de verschillende systemen zodanig te ontwerpen dat ze goed samenwerken. Niemand is bijvoorbeeld gebaat bij 5 verschillende wachtwoorden voor 5 verschillende systemen.

Talent-management

De website van het ziekenhuis vermeldt kort dat het ziekenhuis een *high potential*-beleid heeft. De geïnterviewde noemt dat dit de verantwoordelijkheid is van de afdeling training. Het doel van dit beleid is om medewerkers vast te houden die de capaciteit hebben om door te groeien naar een managementfunctie. Dit beleid is niet alleen van toepassing op de hele organisatie, maar ook op de medisch specialisten. Deze zijn in dienst van de organisatie of zijn zelfstandige professionals. Deze zelfstandige professionals hebben zich verenigend in een medisch-specialistisch bedrijf.

Samenwerking, consulatie en korte kommunicatielijnen zijn ook hier van cruciaal belang om de kwaliteit en kwantiteit van de zorg hoog te houden. Het is nodig om te borgen dat beide partijen dezelfde kant opgaan. Ook in deze omgeving, is het belangrijk dat een aantal van deze medisch specialisten doorgroeien in een overkoepelende rol.

De organisatie heeft een geformaliseerd Management Ontwikkel(MO)-traject, specifiek voor jonge medische specialisten. Zij krijgen informatie en training over hoe de financiële systemen werken, over P&O, en over boekhouden om ook in een overkoepelende rol te groeien. Het *high-potential*-beleid is intern gericht en praktisch van aard.

Preventiemedewerker

De website van het ziekenhuis meldt kort de inzet van preventiemedewerkers. De geïnterviewde vertelt dat ze geen gebruik willen maken van gespecialiseerde ARBO-teams. Daarom hebben alle afdelingen een aantal medewerkers voor wie dit werk een nevenfunctie is. Het achterliggende idee is dat de medewerkers op de werkvloer het beste weten wat er gaande is en, opnieuw, om korte

systems in a way that they work together like clockwork. For example, no one wants to have 5 different pass words for 5 different systems.

Innovation 21: Talent management.

The website of the hospital briefly mentions the high potential policy of the hospital. The interviewee states that this is the responsibility of the department training. The goal of this policy is to retain employees who have the capacity to grow to a management function. This is applicable for the whole organisation. But also for the medical specialists. They are employed by the organisation or self-employed professionals. These self-employed professionals have united in a medical specialist firm.

Cooperation, consultation, short communication lines are also here paramount to keep quality and quantity of the care taking high. It is necessary to assure that both parties are heading into the same direction. Also in this environment, it is important that some of these medical specialist grow into an overarching role.

The organisation has a formalized Management Development (MD) route, specifically for young medical specialists. They receive information and training about how the financial system works, about HRM, and about accounting. Also to grow into an overarching role. The high potential policy is internally focussed and practical in nature.

Innovation 22: Prevention officer.

The website of the hospital briefly mentions the employment of prevention officers. The interviewee tells that they don't want to make use of dedicated OHS teams. Therefore all departments have some employees for whom this is a secondary task. The idea behind this is that the employees on the work floor knows best what is going on and, again, to have short communication lines. It is often very practical,

communicatielijnen te hebben. Het werk is vaak erg praktisch van aard, bijvoorbeeld een kar die een doorgang blokkeert. Dit soort incidenten kan vertragend werken wanneer medisch personeel snel naar een patiënt toe moet. Ze kunnen ook ingrijpen als ze zien dat medicijnen of giftige vloeistoffen niet achter slot en grendel zitten. De medewerkers kennen hun eigen afdeling goed zodat het logisch is om gebruik te maken van hun kennis. Meestal zijn dit medewerkers die al een interesse hebben in deze activiteiten en die het leuk vinden om te doen. Ze worden getraind door een ARBO-deskundige.

e.g. a cart is blocking an aisle. These incidents can delay the time of arrival when medical personal need to rush to a patient. Or these prevention officers intervene when they see medicines of toxic fluids that are not locked away. The employees of a department know the ins and outs of their department so it is only logical to make use of this knowledge. Most times these are employees who already have an interest in these activities, who like to do this. They are trained by the OHS advisor.

Platte organisatie
In zijn algemeenheid is het altijd het beleid om taken en verantwoordelijkheden zo laag mogelijk in de organisatie neer te leggen. De organisatie is dan ook zo plat mogelijk.

Innovation 23: Flat HRM organisation.
In general, it is always the policy to lay down tasks and responsibilities as low as possible in the organisation. The organisation is as flat as possible.

Coöperatie
Naast de eerder genoemde samenwerking, is er ook samenwerking op een breder niveau. Het ziekenhuis neemt deel aan een samenwerkingsverband met de regio Rotterdam. Dit samenwerkingsverband bestaat momenteel uit 21 zorgorganisaties. Zij delen innovaties.

In zijn algemeenheid, wat gezamenlijk kan worden gedaan, wordt ook samen gedaan. Een ander voorbeeld is dat alle 21 organisaties hebben geïnvesteerd in een carrièreplatform. Dit had ziekenhuis #1 nooit zelfstandig kunnen realiseren.

Innovation 24: Cooperation.
Besides cooperation mentioned earlier, there is also a broader cooperation. The hospital participates in a partnership with region Rotterdam. This partnership has currently 21 care organisations. They share innovations.

In general, what can done collectively will be done collectively. Another example is that all 21 organisations have invested in a career platform. DGH#1 could never have realized this on her own.

Vacaturebank
Vanuit een P&O-perspectief delen ze bijvoorbeeld een vacaturebank. Dus als ziekenhuis #1 een vacature vacant heeft, dan zetten zij dat op de collectieve website, net als de andere ziekenhuizen. Indien nodig, wordt informatie met elkaar gedeeld. Zij hebben ook afspraken gemaakt over de collectieve ontwikkeling van trainingen voor specialisten, of op het gebied van duurzame inzetbaarheid van medewerkers.

Innovation 25: Vacancy pool.
From the HRM perspective they e.g. share a vacancy pool. So if DGH#1 has a vacancy, they place it on the collective website and so do other hospitals. If deemed necessary, they can exchange information. They also have made agreements regarding collective development of specialists trainings, or regarding sustainable employability.

Coöpetitie
Ziekenhuizen zijn over het algemeen niet

Innovation 26: Coopetition.
Hospitals generally are not equipped to do

toegerust om alles te kunnen doen. Ziekenhuis #1 is een klein ziekenhuis en zij kunnen niet alle vormen van zorg optimaal leveren. Hun credo is dat je niet doen, wat je niet goed kunt doen. Daarom verwijzen ze patiënten door naar andere ziekenhuizen waar ze een overeenkomst mee hebben en deze ziekenhuizen doen op hun beurt hetzelfde. Er is dus een coöpetitie tussen concurrenten waar alle partijen baat bij hebben. Een voorbeeld is de zorg voor kinderen met diabetes. Binnen deze coöpetitie is het belangrijk om je eigen identiteit te bewaren.

Gedeelde ontwikkeling kan veel geld besparen. De ontwikkeling van een elektronisch patiëntendossier was duur en er zat geen toegevoegde waarde in het opnieuw uitvinden van het wiel op individuele basis.

Religieuze identiteit

Ziekenhuis #1 geeft een religieuze identiteit. Vertegenwoordigers van kerken zijn onderdeel van de identiteitscommissie. Een aantal van de zorghuizen heeft een religieuze identiteit een aantal niet. Deze identiteit uit zich in de cultuur, de omgangsvormen, de kernwaardes, vertrouwen en mededogen. Het vormt hoe men met elkaar en met de patiënten omgaat. Medewerkers hoeven deze religieuze identiteit niet te delen, maar ze moeten het wel respecteren en haar kernwaardes delen.

Focus

De focus van ziekenhuis #1 ligt op *communicatie* en *samenwerking zoeken met externe partijen*.

everything. DGH#1 is a small hospital and they can't deliver some forms of care optimally. Their maxim is that they don't do what they can't do right. Therefore they send on patients to other hospitals with which they have an agreement and those hospitals will do the same. So it is a cooperation between potential competitors from which all parties will benefit. On example is care for children with diabetics. Within this co-operation, it is important to keep your own identity.

Shared developments can save a lot of money. For example the development of electronic patient records were expensive and there is no added value in reinventing the wheel on individual basis.

Religious identity

DGH#1 has a religious identity. Representatives of churches are part of the identity comity. Some of the nursing homes have a religious identity and some don't. This identity is reflected in the culture, the treatment, the core values, trust, and compassion. It shapes how we interact with each other and with patients. Employees don't have to share this religious identity but they have to respect it and share its core values.

Focus

The focus of DGH# 1 is on *communication* and *cooperation with external parties*.

Coding

Table E1

Potential HRM Innovations in DGH#1

Label	#[a]	Sub-label	Description
			Employment innovations
Learning	20	E-learning management	Digital learning environment. Manager and employee have insight in the training portfolio of an employee. The system gives a warning when an action by manager or employee is required (×)[b].
Talent management	21	Career development	Retention and training of employees who have the potential to grow into a management function (✓).
Recruitment	25	Vacancy pool	Vacancies are shared in a vacancy pool (✓).
			Work innovations
Efficiency	18	Chain of care	In a chain of care, the interfaces between different forms of care are harmonized. It is primarily a healthcare innovation. From an HRM perspective, it can lead to an increase of efficiency due to scale of economy (✓).
Sharing	24	Cooperation	Cooperation with other care organisations on different levels. E.g. to develop trainings (✓).
Sharing	26	Coopetition	HRM departments of competing hospitals work together on expensive HRM improvements (✓).
Communication	7	Gemba, informing	Management walks around on the work floor and talk to people so they know what is happening in the workplace (✓).
Communication	19	HRM business partner	The role HRM business partner deviates from the classical HRM role in two perspectives: (a) closer contact with managers, (b) thinking with manager about strategic HRM issues (×).
Efficiency	9	Lean	Lean as a tool is not yet implemented but the hospital is moving into this direction (×).
Working conditions	22	Prevention officer	Employees who have an interest, are trained to become a prevention officer. This is a secondary task. The logic behind this is that they know best what is going on their department (✓).
			Organizational innovations
Culture	23	Flat organisation	By focussing on short communication line and laying responsibilities as low in the organisation as possible, a flat organisation is established. The logic behind this is that it improves efficiency (✓).

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio Employment innovations : Work innovations : Organizational innovations = 3:7:1 (27%:64%:9%).

Appendix F: Open Interview DGH#2

The first section of this appendix shows in the first column the Dutch interview report that is derived from the interview transcription and corrected by the interviewee. The second column shows the English translation with the found HRM innovations serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Dutch	English
Introductie De geïnterviewde komt uit de zorg en heeft ook daadwerkelijk aan het bed gestaan. Hij/zij was directeur P&O maar is nu directeur met portefeuille P&O. Dit betekent dat hij/zij meer aandachtsgebieden heeft, al is P&O het grootste aandachtsgebied. Het ziekenhuis is een topklinisch ziekenhuis met een regiofunctie en bovendien een opleidingsziekenhuis. De ambitie van het ziekenhuis is om bij de top-3 te gaan horen. De geïnterviewde ziet als ontwikkeling dat de zorg complexer wordt en dat de dokters deze zorg steeds meer gaan verdelen. HRM kan niet los worden gezien van deze ontwikkeling.	*Introduction* The interviewee has a background in care and actually stood at the bedside. (S)he was director HRM but is now a director with a P&O portfolio. This means that (s)he has more areas for attention although HRM is the biggest area. The hospital is a top clinical hospital with a regional function and also a teaching hospital. The ambition of the hospital is to be among the top 3. The interviewee foresees that care becomes more complex and that the physicians will divide this care more. HRM cannot be seen separately from this development.
Perceptie van HRM innovatie De geïnterviewde is wars van elk P&O instrument dat gaat over duurzame inzetbaarheid, competentiemanagement, alle superlatieven in zijn vak. Men moet altijd de instrumenten kiezen die nodig zijn om je organisatiedoel te bereiken. HRM innovatie moet dus geen doel op zich worden.	*Perception of HRM innovation* The interviewee is averse to any HRM tool that is about sustainable employability, competence management; all the superlatives in his profession. One should always choose the tools needed to achieve your organizational target. HRM innovation must not become a goal in itself.
Buiten systemen om werken P&O is nog erg gericht op het bijna monddood maken van de medewerkers. De geïnterviewde vind echter dat juist het najagen van dromen moet worden gestimuleerd. In het verleden is het ziekenhuis bezig geweest met beheersing om zorg goedkoper, efficiënter en effectiever te maken. Hiervoor is onder anderen gebruik gemaakt van Lean en *e-learning*. De beheersingssystemen waren erop gericht om medewerkers binnen ingerichte systemen te houden. Hiermee is de organisatie het individu een beetje uit het oog verloren. HRM heeft altijd gedacht dat de artsen moet doen wat zij zeggen, maar de artsen moeten zich op de patiënt richten.	*Working around systems* HRM is still very focused on gaging the employees. The interviewee, however, thinks that chasing dreams should be stimulated. In the past, the hospital was focussed on control to make care cheaper, more efficient and more effective. To achieve this, they used, among others, Lean and e-learning. The control systems were designed to bound employees within systems. This led to an organisation that lost sight of the individual a bit. HRM has always thought that physicians should do what HRM says, but physicians should focus on the patient.

Procesinhoudelijke verpleegkundige

In het proces van gezondheidszorg, is de huisarts als verwijzer het belangrijkst. Dus het ziekenhuis is geen instituut meer waar men alle activiteiten zelf wil doen. Men moet dus outsourcen. Het belangrijkste, zoals al in vele ziekenhuizen, is het schoonmaken en de keuken. Alle extra's zijn wegbezuinigd. Hiermee is het ziekenhuis een tussenstation geworden.

Het proces moet zijn gericht op de "exit" van de patiënt. Dit gaat echter niet ten nadele van de kwaliteit, want bijvoorbeeld op bacteriologisch gebied is het ziekenhuis een gevaarlijkere omgeving dan de huiselijke omgeving. De arts bepaald hoe lang de patiënt in het ziekenhuis blijft en de verpleegkundige managet het ontslagproces. Als dit proces niet goed wordt gemanaged, dan weet je niet hoeveel bedden je beschikbaar hebt en hoeveel patiënten je nog kunt opnemen en dit gaat ten koste van de efficiëntie. Hiervoor is niet alleen vakinhoudelijke kennis vereist, maar ook logistieke kennis. Hiervoor moeten verpleegkundigen worden opgeleid tot procesinhoudelijke verpleegkundige.

De zorg verplaatst zich naar de wijk en wijkverpleegkundige is een vak. Procesinhoudelijk verpleegkundige is een middel om het proces goed te doorlopen. Hiervoor zoekt HRM verpleegkundigen die het leuk vinden om mensen zo snel mogelijk weer thuis te krijgen.

HRM is voortdurend in gesprek met opleidingsinstituten om dit procesmatige aspect in de opleidingen te krijgen. Verder geven zij ook intern hierin opleidingen.

ERP-systeem

Het ziekenhuis heeft nu op de verschillende afdelingen een afdelingssecretaresse die de lab-uitslagen ophaalt en in een dossier stopt en dat soort zaken. Het ziekenhuis krijg een Enterprise resource planning (ERP) systeem. De aanschaf is duur maar het geld wordt terugverdiend door een reductie in fte's. Het systeem is veiliger want het is wetenschappelijk bewezen dat tijdens elk overdrachtsmoment er een gevaar

Innovation 27: Process nurse.

In the process of healthcare, the general practitioner as a referrer is the most important. So the hospital is no longer an institute that wants to do all activities by themselves. So one should outsource. The key, as already in many hospitals, is cleaning and cooking. All extras are whittled down. And due to this, the hospital has become an intermediate station.

The process should be directed towards the "exit" of the patient. This is not at the expense of quality, because, for example regarding bacteria, a hospital is a more dangerous environment than the home environment. The physician determines how long the patient stays in the hospital and the nurse manages the dismissal process. If this process is not managed well, then you do not know how many beds you have available and how many patients you can still hospitalize and this is at the expense of efficiency. To do this, requires not only professional knowledge, but also logistics knowledge. This requires nurses to be trained to a process nurse.

Healthcare moves to the district and a district nurse is a profession. A process nurse is a mean to finish a process successfully. For this, HRM is looking for nurses who would like to get people back home as soon as possible. HRM has regularly contact with schools to make the process related aspect part of the curriculum. They also provide internal trainings regarding this aspect.

ERP-system

The hospital now has various departments with a department secretary who e.g. collect lab results and file them manually. The hospital gets an Enterprise resource planning (ERP) system. It is an expensive acquisition but the money is recovered by a reduction in FTEs. The system is safer because it is scientifically proven that during each transfer, there is a risk of information corruption and this is a potential danger for the patient.

bestaat voor informatiecorruptie en dat is een potentieel gevaar voor de patiënt.

Deze procesmatige benadering gaat echter wel ten koste van de creativiteit van de professional want je moet een aantal stappen doorlopen, als er geen vinkje staat mag je niet verder in het proces. Verder wordt van de gebruiker een zekere discipline verwacht om de privacy van de informatie te borgen.

Teamwork
Teamwork vereist dat iedereen de zelfdiscipline heeft om zich in andere leden van de procesketen in te denken. Bovendien moet medewerkers elkaars werk kunnen overnemen. De opdracht voor het team moet helder zijn, evenals de persoonlijke bijdrage van een teamlid aan het proces. Als deze persoonlijke bijdrage duidelijk is, krijg je ook individuele dankbaarheid en voldoening.

Herkenbare functiekarakteristieken
HRM heeft veel verschillende functies met functiekarakteristieken gedefinieerd. Zij hebben dat gedaan vanuit het geloof dat een medewerker als individu moet worden aangesproken in hetgeen hij doet. Een functiekarakteristiek moet herkenbaar zijn; alles wat generiek is wordt onpersoonlijk. Dit gaat niet ten koste van de beheersbaarheid.

Faciliteren professional
Professionals zijn vaak eigenwijs. Zij moeten stoer gedrag vertonen omdat ze zich in korte tijd moeten bewijzen. Zij vergeten vaak dat ze onderdeel zijn van een keten. Toch moet men de professional in zijn rol laten en vooral goed faciliteren zodat hij zoveel mogelijk patiënten kan afhandelen.

Van adviseren naar controleren
HRM heeft nu een sterk adviserende rol, zij willen meer naar een controlefunctie.

Focus
De focus van ziekenhuis #2 ligt op *procesbeheersing* en *concentratie op kerntaken*.

However, this process-based approach is at the expense of the creativity of the professional because you have to go through several steps, if there is no tick, you may not continue in the process. Furthermore, a certain discipline is expected of the user to ensure the privacy of the information.

Teamwork
Teamwork requires that everyone has the self-discipline to move into the thoughts of other members of the process chain. Furthermore, employees should be able to take over each other's work. The task for the team should be clear, as well as the personal contribution of a team in the process. If this personal contribution is clear, you also get individual gratitude and satisfaction.

Recognizable function characteristics
HRM has defined many different features with functional characteristics. They did so in the belief that an employee as an individual must be held accountable for what he does. A function characteristic must be recognizable; all that is generic becomes impersonal. This is not at the expense of manageability.

Facilitation professional
Professionals are often stubborn. They must exhibit tough behaviour because they have to prove themselves in a short time. They often forget that they are part of a chain. However, one must leave the professional in his role and facilitate him as good as possible so he can handle as many patients as possible.

From advise to control
HRM now has primarily an advisory role, they want more towards a control function.

Focus
The focus of DGH#2 is on *core business* and. *processes.*

Coding

Table F1

Potential HRM Innovations in DGH#2

Label	#[a]	Sub-label	Description
			Work innovations
Efficiency	27	Process nurse	A nurse with logistical knowledge who manages the dismissal process of the patient (✓)[b].

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio Employment innovations : Work innovations : Organizational innovations = 0:1:0 (0%:100%:0%).

Appendix G: Open Interview DGH#3

The first section of this appendix shows in the first column the Dutch interview report that is derived from the interview transcription and corrected by the interviewee. The second column shows the English translation with the found HRM innovations serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Dutch	English
Eerste indruk Ziekenhuis #3 is een groot ziekenhuis. De eerste indruk is dat het een goedgeorganiseerde en gestructureerde omgeving is. Parkeerplaatsen zijn gecodeerd en het ziekenhuis heeft "straten" met een duidelijke identificatie van zijn "bewoners". De staffuncties zijn een afzonderlijk gebouw ondergebracht. Ook hier dezelfde structuur. Zo heeft de afdeling P&O (Personeel & Organisatie) genummerde opbergkluisjes. Door gebruik van levendige kleuren en kunst, is de sfeer van de omgeving echter warm.	*First impression* DGH#3 is a large hospital. The first impression is that it is a well-organized and structured environment. Parking places are coded and the hospital has "streets" with clear identifications of its "residents". Staff functions are housed in a separate building. Also here the same structuring. E.g. the department P&O (Personnel and Organisation) has numbered lockers. By use of vibrant colours and artwork, the atmosphere of the environment is warm however.
Introductie De geïnterviewden is bijna 10 jaar hoofd van de afdeling P&O. In deze periode is jaarlijks een kostenreductie gerealiseerd. Op dit moment vergt de fusie veel tijd en energie. Hij/zij heeft een helder beeld van de richting die HRM zou moeten volgen. In zijn/haar ogen gaan veranderingen niet snel genoeg. De complexiteit van het werk van HRM is toegenomen als gevolg van bijvoorbeeld de fusie. Het ziekenhuis moet kosten besparen. De omgeving verandert steeds sneller. De vaardigheden van de professional nemen toe, maar de verwachtingen van de klant ook.	*Introduction* The interviewee is for almost 10 years head of the department P&O. In this period, a cost reduction was realized yearly. At this moment the merger consumes a lot of time and energy. (S)he has a clear vision of the direction HRM should follow. In his/her eyes, changes are not going fast enough. The complexity of the work of HRM is increased due to e.g. the merger. The hospital needs to save costs. The changes in the environment accelerate. Professional's performance is increasing, but so is customer demand.
Perceptie HRM innovatie Hij/zij definieert huidige HRM innovaties als de deelverzameling van (a) technologie, (b) Big Data, en (c) mensen; zie Figuur G1.	*Perception of HRM innovation* (S)he defines current HRM innovations as the cross section of (a) technology, (b) Big Data and, (c) human resources; see Figure G1.

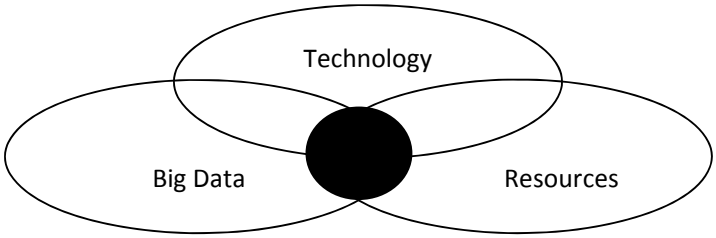


Figure G1. Perceived Hotspot of Innovation.

Fusie

De huidige organisatie is een fusie-organisatie. Eén ziekenhuis, verspreid over 3 locaties, leidt tot een andere definitie van de visie van de organisatie: regionale medische zorg, dicht bij de plaatselijke bewoners, en complexe medische zorg in academische ziekenhuizen verder weg. Dit leidt tot een centralisatie van de hr-functie, zowel organisatorisch als fysiek, resulterend in een grotere afstand tot de klant. Hrm-adviseurs zijn centraal gehuisvest, maar moeten decentraal met de klanten werken.

Kleine ziekenhuizen worden vaak geassocieerd met een zekere beslotenheid, vriendelijkheid en gastvrijheid, welke deels verloren lijkt te gaan bij grotere ziekenhuizen tot spijt van zowel patiënten als staf.

De hrm-professional van de oude stempel stond dicht bij, en kende zijn klanten. Hij was vaak betrokken in bijvoorbeeld het bemiddelen in een conflict tussen een manager en een medewerker. Deze professional werkt nu voor de hele organisatie. Hij kent zijn klanten niet persoonlijk en zij kennen hem niet persoonlijk. Het risico bij deze vorm van een professionele bureaucratie is dat het leidt tot een onpersoonlijke manier van werken.

Merger

The current organisation is a merger organisation. One hospital, spread over 3 locations, leads to a different definition of the organisational vision: regional medical care close to the local residents, and complex medical care in academic hospitals further afield. This led to a centralisation of the HR function, organisational as well as physical, resulting in a greater distance towards the customer. HRM advisors reside centrally but have to work de-centrally with their customers.

Small sized hospitals are often associated with a certain seclusion, friendliness and hospitality, which in part seems to be lost in larger hospitals to the regret of both patients and staff.

The “old school” HRM professional was close to, and knew his customers. He was often involved in e.g. mediating in a conflict between a manager and an employee. This professional now works for the whole organisation. He doesn’t know his customers personally and they don’t know him personally. The risk of this form of a professional bureaucracy is that it leads to an impersonalized way of working.

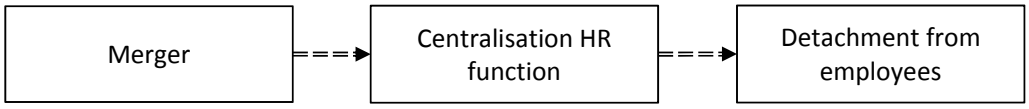


Figure G2. Merger Leads to Detachment from Employees.

Workflow

Hrm-workflows hebben de administratieve werkbelasting gereduceerd. Dit heeft bij managers geresulteerd in de perceptie dat hrm werk naar hun heeft toegeschoven. Dit is niet

Innovation 28: HRM workflow.

HRM workflows reduced the administrative workload. This resulted in a perception of the managers that HRM shifted work to them. This is not true, they just have to work in a different

waar, zij moeten alleen op een andere manier werken. De overgang naar workflows geeft hrm de mogelijkheid om hun schaarse middelen te benutten voor waardevollere activiteiten. Workflows leiden ook tot een meer geformaliseerde manier van werken in een systeem.

Big Data

Hrm gebruikt meerdere vormen van het uitvragen van het management, zoals: (a) risicoanalyse & evaluatie, (b) medewerkersonderzoeken naar productiviteit, betrokkenheid en tevredenheid, (c) jaarlijks persoonlijk interview. In het verleden verzamelde hrm-adviseurs handmatig informatie met behulp van vragenlijsten. Dit was een arbeidsintensief, duur en traag proces. Daarom wil hrm dit sturen vanuit een database.

Als de managers het resultaat krijgen, dan moeten een actieplan maken. In plaats van een op papier gebaseerd plan, wordt dit nu vanuit een database in een gestandaardiseerd formaat aangeboden binnen een web-omgeving.

Onderdeel van het actieplan is een analyse van energie en stressoren waarmee een medewerker wordt geconfronteerd op zijn werk zodat deze krachten met elkaar in balans kunnen worden gebracht. De van toepassing zijnde energie en stressoren worden aangevinkt. Een menu toont daarna de mogelijke interventies. In een ander menu, kan de manager de resultaten invoeren die hij wil bereiken. De software dwingt de manager ook om de voortgang te rapporteren. In geaggregeerde vorm wordt de informatie gebruikt door hrm om correctieve acties te ontwikkelen waar alle managers baat bij hebben en die dienen als input voor een nieuwe beleidscyclus.

Een ander voorbeeld van Big Data is optimalisatie van teamsamenwerking. Data over de typologieën van medewerkers wordt m.b.v. vragenlijsten verzameld. Deze data wordt in een database ingevoerd en geanalyseerd. Deze analyse kan helpen om succesvolle teams te formeren en om teamsamenwerking te verbeteren voor een

way. The switch-over towards workflows gives HRM the opportunity to deploy their scarce resources towards activities that yield higher value. Workflows also leads to a more formalized way of working in a system.

Innovation 12: Big Data.
Innovation 29: Database.

HRM employs different forms of inquiry of management, e.g. (a) risk assessment & evaluation, (b) employee surveys about productivity, engagement and satisfaction, (c) annual individual interview. In the past, HRM advisors collected this information manually with questionnaires. This was a labour-intensive, expensive and slow process. Therefore, HRM wants to steer this from a database.

If the managers get the results, they have a make a plan of action. Instead of a paper based plan, this is now offered from a database in a standardized format in a web environment.

Part of the plan of action is an analysis of the energy and stressors an employees is confronted with in his work so these forces can be balanced. The applicable energy and stressors are marked in checkboxes. A menu shows thereafter possible interventions. In another menu, the manager can enter which results he wants to accomplish. The software also forces the manager to report progress. In aggregated form, the information is used by HRM to develop corrective actions that benefit all managers and as input for the new policy cycle.

Another example of Big Data is optimization of team collaboration. With questionnaires, data about the typologies of employees is captured. This data is entered into a database system and analysed. This analysis can help to form successful teams and improve team collaboration for a certain task or to realize a certain goal. This project is still a pilot and, in part, outsourced.

As a shell over the database, is a management dashboard with performance

zekere taak of om een bepaald doel te bereiken. Dit project is nog een pilot en wordt deels uitbesteed.

Een management dashboard met performance indicators wordt als een schil over de database heen gelegd. Hrm streeft ernaar om verschillende databases onder deze schil te leggen en te harmoniseren om geïntegreerde relaties te krijgen. Dit is lastig omdat de verschillende databases een historie hebben.

Het conflict tussen efficiëntieslag en de participatiewet

De zorgsector bood traditioneel veel werk. De organisatie moet zich ontwikkelen binnen de Nederlandse gemeenschap met zijn politieke en financiële kaders. Om te voldoen aan de eis van de klant om de kosten te drukken, werd de sector uitgekleed en veeleisender voor de medewerkers. Niet elke medewerker kan zich echter aanpassen aan deze wijzigingen.

Tegelijkertijd eist de participatiewet dat mensen die buiten de boot zijn gevallen moet worden geïntegreerd. Dit kan vaak alleen met veel moeite. Om dit uit te leggen aan bijvoorbeeld de vakbond en de or, vereist heldere communicatie van hrm.

Deze conflicterende eisen brengen hrm in een lastige positie. De geïnterviewde noemt een zaak van een medewerker die niet gelukkig is met de digitalisatie van zijn/haar werk. Hij/zij werkt 30 jaar voor het ziekenhuis. Deze persoon zit nu in een outplacementtraject. Als dit niet lukt, dan wordt deze persoon ontslagen.

Communicatie

De klassieke klacht van de jaren ’80 en ’90 was dat organisaties hun beloftes niet nakwamen. De afdeling hrm heeft herkend dat dit uiteindelijk mis gaat en zij communiceren extern wat zij intern hebben verzameld.

Het ziekenhuis heeft een afdeling communicatie. Zij verzamelen informatie van de verschillende afdelingen, inclusief de afdeling hrm en harmoniseren deze informatie in samenspraak met deze afdelingen. Dit resulteert in consistente externe en interne communicatie. De afgelopen 5 tot 10 jaar is de

indicators. HRM strives to get different databases under this shell and to harmonize these database to establish integrated relationships. This is difficult because all those different databases have a history.

The participation legislation conflict

The healthcare sector traditionally offered many jobs. The organisation has to develop in the Dutch society, with its political and financial context. To satisfy customer demand to limit care premium, the sector became leaner and more demanding for their employees. Not every employee, however, can adapt to these changes.

At the same time, the participation law demands that people who fell by the wayside need to be reintegrated. This can often only be accomplished by artifices and extensive accompaniments. To explain this to e.g. unions and works council demands from HRM clear communication.

These conflicting demands bring HRM in a difficult situation. The interviewee mentions a case of an employee who doesn’t feel happy with the digitalisation of his/her work. (S)he worked at the hospital for 30 years. This person is in an outplacement route now. If this route is unsuccessful, this person will have to be fired.

Communication

The classical complaint in the years ’80 and ’90 was that organisations couldn’t live up to their promises. The HRM department recognized that this will go wrong in the end and they communicate externally what they collected internally.

The hospital has a department communication. They collect information from the different departments, including the HRM department and harmonize the information in consultation with these departments. This results in consistent external and internal communication. The last 5 to 10 years, the

hoeveelheid communicatie met een factor 3 tot 4 toegenomen.

Thuis, zijn mensen er aan gewend geraakt om actief te zoeken naar informatie i.p.v. passief de informatie ontvangen die wordt geboden; vergelijkbaar met b.v. de overgang van tv-kijken om informatie te krijgen naar informatie zoeken op het internet. Op het werk, vinden medewerkers nog steeds dat b.v. hun manager de informatie moet brengen op een manier dat het begrijpelijk is voor de medewerker. En als dat niet gebeurd, dan denkt de medewerker dat hij het ook niet had kunnen weten.

Er zou een haal-en-brengplicht voor informatie moeten zijn.

Er zijn geen technische beperkingen meer, het is cultuurgerelateerd. Hrm probeert deze cultuur te veranderen.

Bedrijfswaarden afgeleid van medewerkerswaarden

In het verleden waren medewerkers over het algemeen sceptisch over de kernwaarden van de organisatie.

De afdeling HRM heeft een onderzoek uitgevoerd naar welke kernwaarden de medewerkers terug willen zien in hun werk voor nu en voor de toekomst. Dit is gedaan met een Barrett scan. HRM heeft deze scan geanalyseerd en is tot de volgende 3 kernwaardes gekomen: (a) helderheid, (b) toewijding, en (c) entrepreneurschap. Deze kernwaarden zijn teruggegeven aan de organisatie en omdat zij hun input herkende, identificeerden zij zich ermee. De kernwaardes van het ziekenhuis reflecteren dus de kernwaardes van de medewerkers.

De kernwaarden zijn gekoppeld aan de kernmissie. Deze kernmissie is de basis voor operationeel management, interne en externe communicatie, in hr-beleid en financieel beleid. Deze lijnen zijn met elkaar verbonden en worden naar de medewerkers toe gecommuniceerd, net als de bijgewerkte kaders.

Door dit consequent en regelmatig te doen, creëert de organisatie vertrouwen en

amount of communication has increased 3 to 4 times.

At home, people are getting used to actively searching for information instead of passively receiving the information offered. Compare to e.g. the switch from watching television to getting information and information through the internet. At work, employees still feel that the e.g. their manager has to bring the information in a way that it is understandable for the employee. If the information was not presented this way, the employees believes he couldn't know.

There should be an obligation to retrieve as well as to bring information.

There are no technical obstacles anymore, it is culture related. HRM tries to change this culture.

Innovation 30: Corporate values derived from employees values.

In the past, employees where generally sceptical about organizational core values.

The HRM department conducted an investigation about which core values employees would like to see reflected in their work now and in the future. This was done by a Barrett scan. HRM analysed this scan and came to 3 core values: (a) clarity, (b) commitment, and (c) entrepreneurship. These core values were given back to the organization and since they recognized their input, they identified with them. So the hospital's core values reflect the employee's core values.

The core values are coupled to the core mission. This core mission is the base for operational management, internal and external communication, in HR policy and financial policies. These threats are connected and communicated towards the employees. Updated frameworks are also communicated.

By doing this consistently and repeatedly, the organization creates trust and internalization among the employees.

internalisering onder de medewerkers.

Training
Er lijkt altijd een reden te zijn voor het management om geen verantwoordelijkheid te nemen; vaak met de verantwoording dat het niet hun idee was. Verder voelen zij zich alleen verantwoordelijk voor hun eigen domein. Maar elke manager zou een gemandateerde werknemer moeten zijn die zich verantwoordelijk voelt voor de organisatie als geheel en op externe krachten acteert. Zij moet niet alleen kopiëren wat hun manager doet maar moeten leiders zijn.

Om deze paradigmaverschuiving af te dwingen, heeft hrm een *management ontwikkelprogramma* ontwikkeld. Zij faciliteren met resources en competenties. Dit programma is op dit moment alleen voor het huidige management. Zo gauw het programma cyclisch wordt, worden ook *high potentials* toegelaten.

Dit is niet zonder risico. Men moet geen kroonprinsen maken door op voorhand te definiëren dat zij manager worden van een bepaalde afdeling.

Er zit een retentiebeleid achter dit programma. Het frustreert een medewerker als hij zijn mogelijkheden niet kan ontplooien en hij zal een uitweg zoeken. Dit is meestal naar buiten.

Training
There always seems a reason for management not to take responsibility; often with the justification that it wasn't their idea. Furthermore, the tend to only feel responsible for their domain. But every manager should be a mandated employer, feeling responsible for the company as a whole and participating on external forces. They shouldn't just copy what their manager does, they should be leaders.

To enforce this paradigm shift, HRM developed a *management development programme*. They facilitate with resources and competences. This programme is currently only for the incumbent management. As soon as this programme becomes cyclic, high potentials are also included.

This is not without a risk. One should not make crown princes by defining on forehand that they will become the manager of a certain department.

There is a retention policy behind this programme. It will frustrate an employee if he can't deploy his potential, and he will find a way. This is usually a way outside.

Blended learning
Digitalisering heeft een impact op training. Het ziekenhuis biedt verschillende vormen van e-training zoals: *e-learning* en *blended learning*. Voor alle trainingen moet hrm een *make-or-buy*-beslissing nemen.

Innovation 31: Blended learning.
Innovation 20: E-learning.
Digitalization has an impact on training. The hospital offers different forms of e-training: e.g. e-learning, blended learning. For all trainings HRM needs to make a make-or-buy decisions.

Focus
De focus van ziekenhuis #3 ligt op *systemen* en de *huidige fusie*.

Focus
The focus of DGH#3 is on the *current merger* and *systems*.

Coding

Table G1

Potential HRM Innovations in DGH#3

Label	#[a]	Sub-label	Description
		Employment innovations	
Learning	31	Blended learning	E-learning is combined with traditional class room learning.
Learning	20	E-learning	Electronic form of learning (✓)[b].
		Work innovations	
Efficiency	28	HRM workflow	Optimise processes in an HRM workflow (✓).
Efficiency	29	Database	Store digitalized information in a database to increase accessibility of information and reduce costs (✓).
Efficiency	12	Big Data, to compose optimal teams	Use Big Data to analyse characteristics of individual employees to form optimal teams (✓).
		Organizational innovations	
Culture	30	Corporate values derived from employees values	Corporate core values are derived from the employee's core values so employees feel identified by them (✓).

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio Employment innovations : Work innovations : Organizational innovations = 2:3:1 (33%:50%:17%).

Appendix H: Open Interview DGH#4

The first section of this appendix shows in the first column the Dutch interview report that is derived from the interview transcription and corrected by the interviewee. The second column shows the English translation with the found HRM innovations serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Dutch	English
Eerste indruk De ondersteunende functies van ziekenhuis #4 zijn ondergebracht op een locatie buiten het ziekenhuis. De receptionist is op de hoogte van mijn komst en uiterst attent. De sfeer is vriendelijk.	*First impression* The support functions of DGH#4 are housed at a location outside the hospital. The receptionist is aware of my coming and very attentive. The atmosphere is friendly.
Introductie De geïnterviewde heeft zijn/haar hele loopbaan in een ziekenhuis gewerkt. Hij/zij is organisatieadviseur geweest en heeft zich daarna verdiept in het p-werk. Tussendoor circa 10 jaar manager geweest van diagnostische afdelingen. Sinds 2 jaar werkt hij/zij weer bij P&O.	*Introduction* The interviewee has his/her entire career been working in a hospital. (S)he has been an organizational consultant and has subsequently focused on the p-work. In between about 10 years manager of diagnostic departments. Since two years, (s)he works for HRM again.
Gepercipieerde mate van innovatie Het personeelsbeleid volgt vaak de processen van het ziekenhuis. Door een nieuwe term te introduceren, lijkt iets nieuw maar als je het afpelt, is het vaak gewoon oude wijn in nieuwe zakken. Bottom line is dat het over mensen blijft gaan en de juiste persoon op de juiste plek. Alleen de hulpmiddelen veranderen. Als een ander ziekenhuis al verder met iets zijn, en ziekenhuis #4 haakt aan, dan voelt het niet meer als een innovatie; het wordt dan meer beleefd als een verandering, voortgang of wijziging.	*Perception of HRM innovation* The personnel policy often follows the processes of the hospital. By introducing a new term, something seems new but if you peel off, it is often just old wine in new bottles. Bottom line is that it still about people and the right person in the right place. Only the tools change. If another hospital leads and DGH# 4 hooks, then it does not feel any more like an innovation; it will be more experienced as a change, progress or modification.
HR-administratie bij de medewerker neerleggen P&O hield in het verleden de personeelsadministratie bij. Bijvoorbeeld wijzigingen van de adressen, of de huwelijkse staat. De digitalisering van informatie heeft het mogelijk gemaakt dat een deel (aanpassen van NAW-gegevens en declaraties reiskosten) van de personeelsadministratie bij de medewerker is neergelegd.	*Innovation 32: Delegation HRM administration to employee.* In the past, HRM processed the personnel administration. For example, changes in addresses, or marital status. The digitization of information has made it possible that a part (modifying contact details and travel expense claims) of the personnel administration is now processed by the employee.

Digitalisatie medische bibliotheek
Het ziekenhuis heeft een medische bibliotheek voor artsen-assistenten in opleiding. In het verleden was hier veel vloeroppervlak voor nodig voor de boekenkasten.

Digitalisering heeft ervoor gezorgd dat het effectiever is om artikelen en andere resources digitaal op te vragen of om te lenen bij anderen, dan deze zelf in papieren vorm te hebben. Daarom is anderhalf jaar geleden de bibliotheek fors verbouwd. Hoewel lastig in te schatten, verwacht de geïnterviewde dat ongeveer 80% van de boeken is verdwenen.

E-learning via internet
Training valt binnen de verantwoordelijkheid van de afdeling P&O. *E-learning* doet steeds meer zijn intrede in ziekenhuis #4. Beperking is dat je cursusmodules én op ziekenhuizen gericht moeten zijn, én op de Nederlandse markt georiënteerd moeten zijn.

Het ziekenhuis heeft een leerplein. Dit leerplein is de toegang tot het *e-learning* portaal. Hier worden cursusmodules ingehangen. Deze worden deels ingekocht en deels in samenwerking met de toeleverancier ontwikkeld. Een informatiemanager assisteert P&O hierin. In het leerplein wordt ook bijgehouden of medewerkers een cursusmodule succesvol hebben afgerond.

Flexwerken
Dit is geen innovatie, dit is de ziekenhuisterm voor een nulurencontract. Thuiswerken komt in ziekenhuizen nauwelijks voor omdat het *face-to-face*-contact met de patiënt belangrijk is waarbij deze patiënt aan het ziekenhuis gebonden is Bij sommige bureaufuncties wordt het toegestaan dat men één dagdeel per week of incidenteel thuis werkt.

Verbinden meerkeuze arbeidvoorwaarden aan bedrijfsdoelen
De meerkeuze arbeidsvoorwaarden is door het Rijnstate-ziekenhuis halverwege de jaren-90 als cafetaria-model neergezet. Daarna is het opgenomen in de cao. Ziekenhuis #4 heeft de meerkeuze arbeidsvoorwaarden laten

Innovation 33: Digitization medical library.
The hospital has a medical library for physicians and assistants in training. In the past, a lot of floor space was needed for the bookshelves.

Digitization enabled that it is more effective to ask for digital articles and other resources or to lend them from others, then to have this information in paper form. Therefore the library was one and a half year substantially rebuilt. Although difficult to predict, the interviewee estimates that about 80% of the books have disappeared.

Innovation 20: E-learning via intranet.
The department HRM is responsible for training. E-learning enters DGH#4 more and more. A limitation is that course modules must be specifically for hospitals and also for the Dutch market.

The hospital has a *learning square*. This learning square is the entry to the e-learning portal. The course modules are embedded in this environment. Some of them are bought and others are developed in cooperation with the supplier. An information managers assists HRM in this process. The learning square also keeps track of the course modules successfully completed by the employees.

Flex working
This is not an innovation, this is a hospital term for a zero-hour contract. Homeworking is rare in hospitals because the face-to-face contact with the patient is important and this patient is bound to the hospital. For some office functions it is allowed to work one day a week or occasionally at home.

Innovation 34: Connecting MC of employment to company goals.
The concept of multiple choice of employment was introduced by the Rijnstate hospital in the 90's as a cafeteria model. Thereafter, it was included in the collective labour agreement. DGH#4 connected their multiple choice of employment to the focus points of the hospital:

aansluiten bij de speerpunten van het ziekenhuis: *voeding*, *sport*, en *bewegen*.

Duurzame inzetbaarheid
Duurzame inzetbaarheid is een nieuwe term voor een reeds bestaand fenomeen. Het rendement dat bedrijven hier uit halen, loopt vooralsnog achter bij de verwachtingen. Bovendien loop je hier ook tegen de grenzen van de privacy van de medewerker aan.

Ouderenbeleid is traditioneel gericht op het fysiek fit blijven van de 55+-ers. De geïnterviewde vindt echter dat werken aan vitaliteit al op veel vroegere leeftijd moet beginnen om niet later een probleem te krijgen. Traditioneel werd bovendien van 55+-ers niet meer verwacht dat dat ze hun vak bijhielden; dit is nu wel het geval.

Crew resource management
In de luchtvaartindustrie gelden strikte gezagsverhoudingen. Er zijn een aantal (bijna) ongelukken gebeurt doordat een mindere niet tegen de verkeerde beslissing van een meerdere in durfde te gaan. Ook in een ziekenhuis is bijvoorbeeld een specialist meer gezaghebbend dan de anderen.

Crew resource management is een vorm van training. Het concept hierachter is dat iedere medewerker even belangrijk is en voor de start zijn rol pakt. Iedereen mag wat zeggen en wordt gehoord. Bovendien is iedereen is bij machte om een time-out te vragen, in het belang van de patiënt. Na een operatie volgt een feedbacksessie onder begeleiding van een procesbegeleider. Het filmen van de feedback schijnt een adequaat instrument te zijn. Het lijkt confronterend maar de meeste mensen raken hier (snel) aan gewend.

Deze nieuwe manier van werken is niet gemakkelijk voor zowel de gezaghebbende als de niet-gezaghebbenden. De interne trainers hebben een label. Daarom, en in verband met specifieke trainingsvaardigheden, wordt deze training uitbesteed aan een externe partij. Een bijkomende voordeel is dat deze ook kennis van andere ziekenhuizen meenemen.

Crew resource management is nu nog met name gericht op de ok en dus op de werkvloer.

nutrition, *sports* and *exercise*.

Innovation 35: Preventive sustainable employability.
Sustainable employability is a new term for an already existing phenomena. The actual efficiency improves is currently below expectations. Moreover, one also runs into the limits of the privacy of the employees.

The policy for senior employees is traditionally focussed on physical fitness of the 55+. The interviewee believes that working on vitality should start much earlier to avoid having a problem in old age. Traditionally 55+ employees were no longer expected to keep their skills up-to-date; now they have.

Innovation 36: Crew resource management.
In the aviation industry are strict authority relations. A number of (almost) accidents happened because a subordinate did not dare the wrong decision of a superior. Also, in a hospital, for example, a specialist is more authoritative than the others.

Crew resource management is a form of training. The concept behind it is that every employee is equally important and accepts his role. Everyone can say what he wants to say and will be heard. Furthermore, everyone can ask for a timeout in the interest of the patient. After the operation follows a feedback session under supervision of a process facilitator. Filming of the feedback seems to be an adequate instrument. It seems confrontational but most people get used to it quickly.

This new way of working is not easy for both authoritative and non-authoritative parties. The internal trainers have a label. Therefore, and in connection with specific training skills, this training is outsourced to an external party. An additional advantage is that they bring in knowledge from other hospitals.

Crew resource management is still focused on the operating room and therefore on the workplace. If successful, it will be rolled out further. This training might lead to a cultural

Bij succes wordt het mogelijk breder uitgerold. Mogelijk leidt deze training tot een cultuurverandering binnen de organisatie. Dit zal een geleidelijk proces zijn.

change within the organization. This will be a gradual process.

Op elk moment een maaltijd op maat

Ziekenhuis #4 had een traditionele keuken waar patiënten drie keer per dag een maaltijd kregen. Deze maaltijden werden in karren uitgereden. Een patiënt kan vaak moeilijk een dag van tevoren inschatten wat zijn behoefte is. Dit is mede afhankelijk van hoe hij zich voelt.

Nu mogen patiënten op een willekeurig moment van de dag van 7:00 tot 18:30 zelf hun maaltijd bestellen uit een kaart die naast hun bed ligt. Ze krijgen dan binnen 3 kwartier de maaltijd die ze hebben besteld. Het bestellen gaat met de telefoon die naast hun bed staat. Ze krijgen contact met het callcenter van de interne keuken. Het callcenter vraagt ook door of de patiënt bijvoorbeeld nog iets bij zijn maaltijd wil drinken.

Deze aanpassing was een majeure ingreep. De keuken moest worden verbouwd, instructies moesten worden aangepast en de koks moesten weer aan het fornuis gaan staan. De koks worden hierbij blootgesteld aan piekbelastingen, net als in de horeca.

Deze verandering sluit aan op het speerpunt voeding.

Innovation 37: At any time a tailored meal.

DGH#4 had a traditional kitchen were patients received a meal three times a day. These meals were distributed by carts. It is hard for a patient to estimate his needs one day in advance. This partly depends on how he feels.

Now, at any time of the day from 7:00 to 18:30, patients can order their food from a menu which is located next to their bed. They then get the meal they ordered within three quarters of an hour. They use the phone beside their bed. They get in touch with the call centre of the internal kitchen. The call centre also asks if the patient, for example, wants something to drink with his meal.

This was a major adjustment. The kitchen needed to be rebuilt, instructions had to be modified and the cooks had to stand at the stove again. The cooks are hereby exposed to peak loads, as in the hospitality industry.

This change is consistent with the spearhead nutrition.

Verandering kan tot uitstroom leiden

Bij grote veranderingen, lukt het niet elke medewerker om zich hieraan aan te passen. Het ziekenhuis heeft als beleid om deze mensen intern te herplaatsen en als dat niet lukt te begeleiden naar een baan elders. Het bedrijfsproces blijft wel leidend omdat je niet de hele organisatie in de parkeerstand kunt zetten omdat een enkeling niet kan meekomen.

Change can lead to outflow

In case of major changes, not every employee is able to adapt. The hospital has a policy to reinstate these people internally and if that fails to accompany them towards a job elsewhere. The business process however, remains leading because you cannot put the whole organization in the parking position because some individuals cannot keep pace.

Workflow

Automatisering, vereist dat processen goed gedefinieerd zijn. Vanuit de afdeling automatisering is er daarom een druk op de organisatie om dit op te pakken. De afdeling P&O heeft hier ook belang bij omdat bij een beter beeld, betere interventies kunnen worden gedaan. Processen moeten up-to-date

Innovation 28: HRM workflow

Automation requires that processes are well defined. From the IT department is therefore a pressure on the organization to address this. The HRM department also has an interest in this because with a better picture, better interventions can be done. Processes need to be kept up to date as the pace of changes occur accelerate.

worden gehouden omdat veranderingen elkaar steeds sneller opvolgen.

Van regel-rijk naar regel-arm
Het ziekenhuis wordt zowel intern als extern geäudit. P&O kan een audit gebruiken om in overtuigingskracht te winnen of om te gebruiken als drukmiddel. Audits kunnen helpen om regels en processen up-to-date te houden. Audits hebben er echter ook toe geleid dat in de balans tussen: *trust me, tell me* en *show me*, de nadruk sterk is komen te liggen op het element *show me*.

Hoe meer regels echter, hoe lastiger dit is. Bovendien kunnen regels je speelruimte om maatwerk te leveren beperken. P&O streeft daarom naar algemeen geldende regels en niet voor een regel voor elke mogelijke situatie. Ze noemen dit beleid: *Van regel-rijk naar regel-arm.* Hiervoor is het nodig dat de nadruk weer meer op *trust me* en *tell me* komt te liggen.

Interne vacatures
Bij de werving en selectie wordt een vacature eerst intern gepubliceerd voordat deze extern gaat.

Transparantie
Vanuit een rechtvaardigheids- en gelijkheidsbeginsel, wordt gebruik gemaakt van een loongebouw. Hier kan alleen vanaf worden geweken als er een goede reden is. De arbeidsvoorwaarden zijn transparant en eenduidig zodat hierover geen achterdocht en gevoelens van onrecht in de organisatie ontstaat.

Teams
Er bestaan verschillende soorten team met elk hun eigen dynamiek. Een team van verpleegkundigen, bijvoorbeeld, draagt aan het eind van de werkdag het werk over aan een volgend team. Zij moeten het vertrouwen hebben dat de patiënt bij het overnemende team in goede handen is. Bij absentie moet snel worden gezocht naar een vervanger omdat de patiënt niet kan wachten. Doktersassistenten hebben een werkrelatie met de specialisten en werken meer individueel. Bij absentie van een collega moeten zij het werk hiervan kunnen

Rules reduction
The hospital is both internally and externally audited. HR can use an audit to obtain persuasion or to use as leverage. Audits can help to keep rules and processes up-to-date. Audits, however, also caused that on the balance: *trust me*, *tell me* and *show me*, the emphasis has greatly shifted towards *show me*.

An abundance of rules makes this difficult. Moreover, rules may limit your flexibility to deliver custom fit. HRM therefore seeks general rules and not a rule for every situation. They call this policy: rules reduction. To accomplish this, the focus should be more on *trust me* and *tell me* again.

Internal vacancies
Regarding recruitment and selection, a job first is published internally before going outside.

Transparency
From a fairness and equality principle, a salary structure is used. This can only be departed from if there is a good reason. The working conditions are transparent and clear to avoid suspicion and feelings of injustice in the organization.

Teams
There are different types of team, each with its own dynamics. A team of nurses, for example, transfers at the end of the day the work to the next team. They must have confidence that the patient is in good hands at the team that takes over. At absence must be quickly searched for a replacement because the patient cannot wait. Physician assistants have a working relationship with specialists and work more individually. In absence of a colleague, they should be able to take over the work. Physiotherapist have a one-to-one relationship with a patient. In absence of

overnemen. Fysiotherapeuten hebben een één-op-één-relatie met een patiënt. Bij absentie van een collega moet hier een goede werkoverdracht zijn in verband met de ingezette behandelmethode.

Een team dat niet goed functioneert betekent een potentieel risico voor de patiënt. Als teams vastlopen, worden er interventies gedaan in de vorm van: teambuilding, teamontwikkeling, of teamcohesie. Een groep mensen die allemaal hun eigen verantwoordelijkheid hebben en in hun werk niet afhankelijk zijn van die ander hoef niet te worden gezien als een team.

Contact reglement

Communicatie altijd van groot belang is geweest. Door nieuwe technieken is er wel een verschuiving opgetreden van het belang van mondelinge uitdrukkingsvaardigheid, naar schriftelijke vaardigheden. Dit hoeft niet altijd goed uit te pakken: bij WhatsAppen of e-mailen gaat de non-verbale communicatie verloren. Een ander nadeel van e-mail is dat mensen het misbruiken om werk af te schuiven zonder te vragen of iemand dit wel accepteert. De beschikbaarheid van communicatie is toegenomen maar de sociale complexiteit ook.

Medewerkers hebben zelf groepsApps aangemaakt. Hierin voelen sommige medewerkers de druk om berichten te beantwoorden. Bovendien vloeien werk-gerelateerde en privé-gerelateerde informatie in elkaar over. Hiermee dringt het werk de privésfeer binnen. Collega's zijn bijvoorbeeld ook vrienden van elkaars Facebookpagina. Als medewerkers op de Facebookpagina iets zetten over het ziekenhuis, dan lijkt dat privé, maar dan zit men ook in het publieke domein van het ziekenhuis. Dat heeft in het verleden tot imagoschade voor het ziekenhuis geleid. Daarom heeft P&O een *contact reglement* opgesteld. Hierin staan richtlijnen over hoe medewerkers met sociale media dienen om te gaan.

Focus

De focus van ziekenhuis #4 ligt op het *menselijke aspect van HRM*.

a colleague needs a good job transfer in connection with the treatment method employed here. In absence of a colleague, an elaborate job transfer is needed to keep the deployed treatment method consistent.

A dysfunctional team poses a potential risk to the patient. When teams get stuck, interventions are made in the form of: team building, team development, and team cohesion. A group of people who all have their own responsibility and are independent on their work from the others, need not be seen as a team.

Innovation 38: Contact regulations.

Communication has always been of great importance. New techniques caused a shift from the importance of oral expression, to writing skills. This is not always an improvement: with WhatsApp or email nonverbal communication is lost. Another disadvantage of email is that people misuse it to move up work without asking the recipient for acceptance. The availability of communication is increased but so is the social complexity.

Employees themselves have created WhatsApp groups. Here some employees feel the pressure to answer messages. In addition, work-related and private-related information blend. With this, work enters the private sphere. Colleagues are, for example, also friends of each other's Facebook pages. If employees say something about the hospital on their Facebook, it seems private, but it also enters the public domain of the hospital. This tarnished the image of the hospital in the past. Therefore, HRM has established *contact regulations*. It provides guidelines on how employees should handle social media.

Focus

The focus of DGH#4 is on the *human aspect of HRM*.

Coding

Table H1

Potential HRM Innovations in DGH#4

Label	#[a]	Sub-label	Description
			Employment innovations
Learning	33	Digitization medical library	Information on paper is replaced by information in electronic form. This reduces floor space and increases accessibility (✓)[b].
Learning	20	E-learning	Learning modules are embedded in an intranet portal. Managers and employees can keep track of progress in this system (✓).
			Work innovations
Efficiency	32	Delegation HRM administration to employee	Digitization of information has made it possible that a part of the personnel administration is now processed by the employee instead of by HRM (✓).
Working conditions	35	Preventive sustainable employability	Working on vitality start already with junior employees to prevent having problems in old age (×).
			Organizational innovations
Culture	37	At any time a tailored meal	The appetite of a patient depends on how he feels at a certain moment in time. Therefore tailored meals can be served at any moment (✓).
Culture	34	Connecting MC of employment to company goals	The Multiple Choice of employment is connected to the company goals (✓).
Culture	38	Contact regulations	Misuse of social media tarnished the reputation of the hospital in the past. Therefore the hospital made a guideline with the do's and don'ts of social media (✓).
Culture	36	Crew resource management	Teams are trained in and encouraged to speak up when they suspect that something could be harmful to the patient (✓).

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio Employment innovations : Work innovations : Organizational innovations = 2:2:4 (25%:25%:50%).

Appendix I: Open Interview DGH#5

The first section of this appendix shows the interview report that is derived from the interview transcription and corrected by the interviewee. The found HRM innovations are serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Introduction

The interviewee studied law and worked in police education at the police school. After that (s)he worked as a legal officer for the NWO (Netherlands Organisation for Scientific Research) and after that as a consultant for internal management. (S)he is now for five years chief of the personnel department.

(S)he tries to manage from his head, heart, and stomach.

Innovation 24: Cooperation.

The HRM department cooperates with all care and cure organisations in the region, including academic hospitals, all general hospitals and an eye-hospital. They work together on the subjects: (a) improvement of communication with the labour market, (b) enticement of youngsters for jobs in care or cure, (c) estimation of number of nurses that must be educated for a specialisation, (d) mobility of employees, and (e) sustainability.

Innovation 39: Collective calculation of training needs.

For all functions, the calculation for training needs is calculated for all hospitals in the region. This is done in spreadsheets. For example for child nurses, all hospitals need to answer the following questions: (a) How many child nurses do you have? (b) How many child nurses will leave this organisation this year? (c) How many nurses did you send to school? Based on the answers, the success-ratio for the exams can be calculated and the future training need for child nurses can be estimated. Particularly in closed markets, it increases your control over that market; e.g. child nurses are almost only needed in hospitals.

The retention of these trained specialists is high. Furthermore, there is a gentleman's agreement that the hospitals don't cherry pick on each other's resources. They discussed and rejected the idea of a shared pool.

Innovation 40: Internal employment agency.

The collective of hospitals had the problem that employment agencies recruited personnel of the hospitals. The hospitals could hire this personnel back with 20 to 50 per cent extra costs. The collective of hospitals responded by raising an internal employment agency to compete with the external employment agencies. This works particularly well with the above mentioned topic of control of the number of trained employees.

Innovation 26: Coopetition

The two previous topics are both forms of coopetition. The interviewee sees no problem in it.

Name branding

The HRM department have a dedicated function for name branding. They make also use of an actress. They go to schools and have open days at the hospital. This must be a continuous rather than a periodical activity. The added value, however, is difficult to measure and the HRM department stopped those activities.

HRM website

The HRM department have a website with several tests, courses portfolio, knowledge sharing and a vacancy area.

Innovation 41: Train-each-other program.

Regarding training, The HRM department makes a distinction between pure knowledge enrichment, or knowledge enrichment with a behavioural component. For every course, they decide in which form the course will be given (e.g. e-learning or blended learning), and if the course will be given external or internal. For internal training they use the principles train-the-trainer or train-each-other.

All cure managers where given the task to come with a proposal about how the hospital should organise cure. HRM provided the facilities and a coach and the prospect that a promising proposal would be implemented. The result was that they started to cooperate, shared knowledge, and most importantly: they learned not only to manage top-down their own department, but became aware of the consequences of their processes in other departments. It was a prerequisite that the top management had to give these managers responsibility. It was also a prerequisite that they made a stakeholder analysis and raked commitment from these stakeholders. To reach change, process and content had to be concurrent.

Innovation 42: Magnet hospital.

The core of their advice was that the hospital had to be a magnet hospital. It means that the hospital adopts the principles of excellence or excellent care. This led e.g. to a revised decision structure that incorporated all management in decision making.

Influence of the HRM department

Although the interviewee is a member of the board, (s)he thinks that the influence of the department HRM is limited. HRM still tends to focus primarily on operation and just a bit on tactical issues. Although the director of the board choose the interviewee specifically for this broader view.

Position of the physicians

Physicians are very important in hospitals but most of them are not employees. They are difficult stakeholders. The 3P-model consists of: power, position, and personal competencies. The hospital doesn't have the power, nor do they have position over them, so they only have their personal competencies to control them. They should, however, come in position when it's about the physicians.

The hospital tries to let the physicians feel responsible for the hospital. There is a good relationship between the physicians and the board and they have a voice in this board. However, HRM didn't choose for a structure with physicians in management positions. Instead they choose for a construction where employed physicians are responsible for a certain discipline and they are also responsible for renting free physicians. These free physicians are more productive than the employed ones. One reason is that employed physicians tend to meet during working hours and free physicians in the evening.

Innovation 43: Discretionary training.

Although common in other sectors, it was new for hospitals to reserve money for their employees which they can spend on the training they deem necessary for themselves. This raises the question if the employees will spend this money well and some HRM colleagues from other hospitals are sceptical. It boils down to trusting your employees and when you give them responsibility, they will take responsibility, also in other areas. It is, of course, interesting to ask for their motivations behind their choice for a discretionary training.

There are things like compassion and hospitality that you can't learn. It must be in your heart.

Innovation 44: Work half time and get paid 75% for 60+ employees.

The sickness rate, as well as the personnel costs rise a little every year. Data analysis revealed that this is caused by the 60+ employees. The retirement age has been increased and the seniors had some difficulties combining their jobs with the other responsibilities they have like taking care of grandchildren. So, they work less hours due to the collective contracts, have a higher salary, and a higher absenteeism due to sickness. Furthermore, they block the inflow of young people.

HRM offered the 60+ employees to work half time and get paid 75%. The business case was to break even. About 20 per cent of the 60+ employees accepted this offer. It turned out that the business case was even positive.

Focus

The focus of DGH# 5 is on cooperation with external parties and training.

Coding

Table I1

Potential HRM Innovations in DGH#5

Label	#[a]	Sub-label	Description
			Employment innovations
Recruitment	40	Internal employment agency	The collective of hospitals raising an internal employment agency to compete with the external employment agencies who recruited personnel of the hospitals and rented them back at the hospitals for a higher price (✓)[b].
Learning	41	Train-each-other program	All cure managers where given the task to come with a proposal about how the hospital should organise cure. The result was that they started to cooperate, shared knowledge, and most importantly: they learned not only to manage top-down their own department, but became aware of the consequences of their processes in other departments (✓).
Learning	43	Discretionary training	Employees have a training budget that they can spend on the training they deem necessary for themselves (✓).
			Work innovations
Sharing	39	Collective calculation of training needs	For all functions, the calculation for training needs is calculated for all hospitals in the region to increase control over this closed market (✓).
Sharing	24	Cooperation	The HRM department cooperates with all care and cure organisations in the region (✓).
Efficiency	42	Magnet hospital	The hospital adopts the principles of excellence or excellent care (✓).
Efficiency	44	Work half time and get paid 75% for 60+ employees	HRM offered the 60+ employees to work half time and get paid 75% to decrease overall sickness rate, decrease average loan costs and increase inflow of youngsters (✓).

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio employment innovations : Work innovations : Organizational innovations = 3:4:0 (43%:57%:0%).

Appendix J: Open Interview DGH#6

The first section of this appendix shows in the first column the Dutch interview report that is derived from the interview transcription and corrected by the interviewee. The second column shows the English translation with the found HRM innovations serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Dutch	English
Introductie De geïnterviewde is van origine econoom. Hij/zij is manager HRM geweest bij verschillende commerciële instellingen en is nu manager HRM van het ziekenhuis.	*Introduction* The interviewee was originally economist. (S)he has been HR manager at several commercial organisations and is now HRM manager of the hospital.
Perceptie van HRM innovaties De geïnterviewde vindt dat je goed moet bijhouden wat er zich op het gebied van HRM aan het ontwikkelen is en dat toepassen op de eigen organisatie. HRM innovatie is *out-of-the-box*-kijken en geen kleine stappen zetten maar sprongen maken; niet alleen omdat je veranderen zo leuk vindt, maar omdat je er van overtuigd bent dat het een doorbraak is. In zijn algemeenheid is de zorg op het gebied van HRM niet erg veranderingsgezind. De afdeling HRM van het ziekenhuis #6 innoveert te weinig. Bij een aantal banken zijn de HRM-afdelingen onder invloed van HRM-innovaties enorm ingekrompen. Dit ga je mogelijk ook in de zorgsector krijgen.	*Perception of HRM innovation* The interviewee thinks one should keep track on what is going on in the area of HRM and apply that to their own organization. HRM innovation is an out-of-the-box perspective and not taking small step but leaps; not because you like change, but because you are convinced that it is an breakthrough. In general, healthcare in the field of HRM is not very open to change. And also the department HRM in DGH#6 in not innovative enough. At some banks, the HRM departments greatly reduced under the influence of HRM innovations. This is a possible future scenario for the healthcare sector.
Fusie Het ziekenhuis is sinds kort gefuseerd. De organisatie bestaat nu uit verschillende ziekenhuizen en verpleeghuizen op meerdere locaties. HRM is nu bezig om met integratieprocessen het fusieproces vorm te geven en ook om werkprocessen te vervlechten. De organisatie heeft nu alle specialismen in huis. Men wil worden gezien als een opleidingsziekenhuis om als een aantrekkelijke werkgever te worden gezien.	*Merger* The hospital has recently merged. The organization now consists of several hospitals and nursing homes in multiple locations. HRM is now working with integration processes to shape the merger process and also to interweave work processes. The organization now has all the specialisations inn-house. They want to be seen as a teaching hospital to be seen as an attractive employer.
Accreditaties Het ziekenhuis is bewust bezig om accreditaties te krijgen, zoals bijvoorbeeld de NIAZ-accreditatie (Nederlands Instituut voor Accreditatie in de Zorg).	*Accreditations* The hospital is deliberately trying to get accreditations, such as the NIAZ accreditation (*Nederlands Instituut voor Accreditatie in de*

Zorg) (Dutch Institute for Accreditation in Healthcare).

Workshop leren omgaan met veranderingen
HRM innovatie levert weerstand op. Niet zozeer bij de medewerkers maar meer bij het management, vaak omdat ze al zo druk zijn. Voor verandering heb je dan ook tijd en rust nodig want doordrammen zonder overleg kun je maar beperkt doen.

Hiervoor geeft het ziekenhuis interne workshops. Hierin wordt bijvoorbeeld behandeld hoe je rustig kunt blijven, niet te snel schrikken van veranderingen.

Innovation 45: Train employees how to cope with change.
HRM innovations yields resistance. Not so much with the staff but rather with management, often because they are already so busy. For a change one needs time and rest because forcing without consulting can only be done limited.

The hospital gives workshops about how to cope with change. This workshop covers for example how you can remain calm, not be scared of change too quickly.

Coördinator mobiliteitsbureau
Medewerkers moeten langer doorwerken en dit is zowel fysiek als mentaal lastig. De gemiddelde leeftijd van de medewerkers stijgt maar zij moeten wel optimaal inzetbaar blijven om de organisatiedoelen te kunnen realiseren.

Om hier ook zichtbaar iets mee te doen, is een coördinator mobiliteitsbureau aangesteld. Deze ontwikkelt het beleid op het gebied van duurzaam inzetbaarheid.

Coordinator mobility office
Employees have to work longer and this is both physically and mentally difficult. The average age of employees is increasing but they must remain to be deployed optimally in order to achieve organizational goals.

To act on it on a discernible way, a coordinator mobility office has been appointed. The coordinator develops the policy in the field of sustainable employability.

Digitalisering
De fusie heeft de behoefte aan digitalisering vergroot omdat veel systemen met elkaar moeten worden verbonden. Een voorbeeld is de digitale link tussen huisartsen en ziekenhuizen en de elektronische patiëntendossiers (EPD) en verpleegkundigen dossiers.

Elke vakgroep van artsen of specialisten heeft de neiging om het EPD op een andere manier in te willen richten. Dit maakt het lastig om een uniform EPD te krijgen.

Het digitaliseren van het roostersysteem heeft een tijdsbesparing van een factor 3 opgeleverd.

Digitalisation
The merger has increased the need for digitization because many systems must be linked. An example is the digital link between general physicians and hospitals and electronic medical records (EMR) and nursing records.

Each department of physicians or specialists tends to want to shape this EMR in a different way. This makes it hard to get a uniform EMR.

The digitizing of the scheduling system resulted in a time saving of a factor of 3.

Teamwork
De verantwoordelijkheid voor teamwork ligt bij de leidinggevenden. Zij moeten er voor zorgen dat de teams zodanig in elkaar zitten en samenwerken dat resultaten worden gehaald. Een goed functionerend team zorgt voor meer werkplezier en harder werkende teamleden.

Teamwork
Responsibility for teamwork rests with the supervisors. They must ensure that teams are well composed and work together to ensure results are achieved. A well-functioning team creates more job satisfaction and harder-working team members.

Als er iets aan een team moet worden gedaan, dan kan de leidinggevende hiervoor coaches inhuren. Hiervoor is ook budget beschikbaar.

Outsourcing
Op het gebied van HRM moet je alleen in huis hebben wat echt nodig is om je doelen te bereiken. De rest kan worden geoutsourcet. Outsourcen biedt veel voordelen. Als je outsourcet ben je wendbaarder, vaste medewerkers hebben de neiging om te doen wat ze altijd al deden. Verder hebben externe bedrijven vaak de expertise die uiteindelijk in het voordeel van HRM is.

Old boys network
In de regio zijn veel ziekenhuizen waardoor men al één soort geheel is. Het ziekenhuis heeft dan ook geen regiofunctie.

Er wordt wel eens informeel een beroep op elkaar gedaan. Men belt dan een “vriend”, bijvoorbeeld als men iemand met bepaalde kennis of vaardigheden nodig heeft of wanneer men overtallig personeel heeft.

E-learning in vrije tijd
E-learning wordt op veel verschillende gebieden in het ziekenhuis toegepast. Medewerkers kunnen dit in vanuit huis doen. Zij doen dat in hun vrije tijd. Hier is weinig weerstand tegen. Het wordt gezien als je vak bijhouden. HRM schaft de modules aan en faciliteert. Een nadeel kan de kwaliteit van de inhoud van de modules zijn.

Focus
De focus van ziekenhuis #6 ligt op de *huidige fusie*.

If something needs to be improved to a team, then the manager can hire coaches. There is budget available for this.

Outsourcing
In the field of HRM, you must have only at home what is really necessary to achieve your goals. The rest can be outsourced. Outsourcing offers many advantages. Outsourcing makes you agile, permanent employees tend to do what they have always done. Furthermore, external companies often have the expertise that is ultimately to the benefit of HRM.

Innovation 46: Old boys network.
In the region are many hospitals which already operate more or less as a whole. The hospital therefore has no regional role.

Sometimes informally HRM managers appeal to each other. They then call a "friend", for example when someone needs an employee with certain knowledge or skills, or when one has supernumerary staff.

Innovation 47: E-learning in leisure.
E-learning is used in many different areas in the hospital. Employees can do this from home. They do this in their leisure time. There is not much resistance. It is seen as maintaining ones profession. HRM purchases the e-learning modules and facilitates. A disadvantage is that the quality of the content of the modules is sometimes inadequate.

Focus
The focus of DGH#6 is on the *current merger*.

Coding

Table J1

Potential HRM Innovations in DGH#6

Label	#[a]	Sub-label	Description
		Employment innovations	
Learning	47	E-learning in leisure	Employees follow e-learning modules in their leisure time. It is perceived as maintaining ones profession (✓)[b].
		Work innovations	
Sharing	46	Old boys network	HRM managers informally appeal to each other. For example when someone needs an employee with certain knowledge or skills, or when one has supernumerary staff (✓).
		Organisational innovations	
Culture	45	Train employees how to cope with change	HRM innovations yields resistance. The hospital gives their employees workshops about how to cope with change (✓).

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio Employment innovations : Work innovations : Organizational innovations = 1:1:1 (33%:33%:33%).

Appendix K: Open Interview DGH#7

The first section of this appendix shows in the first column the Dutch interview report that is derived from the interview transcription and corrected by the interviewee. The second column shows the English translation with the found HRM innovations serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Dutch	English
Introductie De geïnterviewde heeft een bedrijfspsychologieachtergrond. Hij/zij heeft een brede werkervaring en is nu ongeveer 12 jaar manager PO&O (personeel, organisatie & opleidingen). Het ziekenhuis geeft medisch specialistische opleidingen tot bijvoorbeeld: interne chirurgie, huisarts, en tropenarts en heeft hiervoor een CZO-erkenning (College Zorg Opleidingen). Het ziekenhuis is momenteel bezig met een fusie. Behalve met vaste medewerkers, worden ook veel gebruik gemaakt van stagiaires en vrijwilligers. De geïnterviewde vind het belangrijk dat medewerkers intrinsiek gemotiveerd zijn.	*Introduction* The interviewee has a business psychology background. (S)he has a broad experience and is now about 12 years Manager PO&O (*personeel, organisatie & opleidingen)* (staff, organization and training). The hospital gives medical specialist training, for example: internal surgery, general doctor, and tropical doctor and has for this a CZO recognition (*College Zorg Opleidingen* (College Care Education). The hospital is currently working on a merger. In addition to permanent staff, extensive use is also made of interns and volunteers. The interviewee thinks it is important that employees are intrinsically motivated.
Perceptie van HRM innovaties Wat een HRM-innovatie is, hangt af van de focus. De focus van HRM is om zaken zo dicht mogelijk bij de werkvloer neer te leggen. Hier worden dan ook de innovaties binnengehaald. Een HRM innovatie moet een toegevoegde waarde en impact hebben en mag geen doel op zich zijn.	*Perception of HRM innovation* What an HRM innovation is, depends on the focus. The focus of HRM is to lay down matters as close as possible to the work floor. Therefore, here the innovations spawn. An HRM innovation must have added value and an impact and is should not be an end in itself.
Leermanagementsysteem De medewerker moet zijn kennis en kunde waarborgen; dit is belangrijk in ziekenhuizen. Daarom heeft iedere medewerker zijn eigen dashboard en krijgt hij zijn eigen signalen.	*Learning Management System* The employee must secure his knowledge and expertise; this is important in hospitals. Therefore, every employee has their own dashboard and gets his own signals.
Werkvermogensmonitor Iedere organisatie is tegenwoordig bezig met het onderwerp vitaliteit maar de vraag is of het ook werkt. Vitaliteit kan in zowel in kleine als in grote dingen zitten. Het is de taak van de organisatie om de medewerker te prikkelen om zelf bij te dragen aan zijn duurzame inzetbaarheid. Onderdeel van een medewerkersonderzoek is de werkvermogensmonitor. De medewerker krijgt	*Innovation 48: Work capacity monitor.* Each organization is nowadays working on the topic vitality but the question is whether it works. Vitality can reside in small as well as in little things. It is the task of the organization to stimulate employees to personally contribute to its sustainable employability. Part of an employee survey is the work capacity monitor. The employee instantly gets the results and with that a personal incentive. The organization

direct de uitslag en hiermee een persoonlijke prikkel. De organisatie kan de werknemer dan faciliteren op de punten waar men rood heeft gescoord. De organisatie maakt hierbij gebruik van het “huis van werkvermogen”. Dit doen zij samen met een werkgeversvereniging. Vooral met afdelingen die in het rood staan worden onder begeleiding van een externe adviseur visiesessies georganiseerd. Ook wordt gewerkt aan werkinrichting en fysieke belasting. Het ziekteverzuim is door deze maatregelen verminderd.

Lean

De geïnterviewde definieert Lean als naar je proces kijken en continue verbeteren. De afdeling HRM is met een Lean-team begonnen en alle managers worden nu opgeleid als Lean-managers. Op een aantal afdelingen vinden ook echte Lean-projecten plaats. De Lean-manager gaat met de medewerkers op een Lean-bord de verspillingen in kaart brengen en deze aanpakken. In het kader van Lean is de directie teruggebracht naar één fte.

Beroepskeuzecarrousel

Om de continuïteit in instroom van goed en vitaal personeel moet je investeren in je eigen arbeidsmarkt. De HRM-afdeling heeft samen met de werkgeversvereniging een beroepskeuzecarrousel opgezet voor kleine groepen van voorbereide scholieren die voor een beroepskeuze staan. Hierdoor krijg je een gerichte beroepsoriëntatie waar jongeren enthousiast worden gemaakt. Het ziekenhuis is ook een sociaal partner in de regio en verwacht dat het beroepskeuzecarrousel bijdraagt aan het behouden van de jeugd in de regio en dat ze niet naar de stad vertrekken.

Digitale werving & selectie

Werving vindt alleen nog plaats via de website van het ziekenhuis en vacature-e-mailing. Sollicitaties zijn alleen nog digitaal en open sollicitaties worden niet meer geaccepteerd. De sollicitaties worden digitaal beoordeeld en iedere sollicitant die op bezoek is geweest, krijgt een korte digitale enquête om opmerkingen en verbeterpunten in kaart te brengen om de klanttevredenheid te verhogen.

can then facilitate the employee at the topics where they have scored red. For this, the organization makes use of the "house of work capacity." They do this in cooperation with an employers’ association. Especially for departments that are in red, vision sessions are organized under the guidance of an external consultant vision. The hospital also works on the organization of work and physical strain relief. Absenteeism is reduced by these measures.

Innovation 9: Lean.

The interviewee defines Lean as watching your process and continuously improvement it. The HRM department has initiated a Lean team and all managers are now trained as Lean managers. A number of departments have already initiated Lean projects. The Lean Manager identifies waste on a Lean-board with his employees and solves these problems. In the context of Lean the board has been reduced to one FTE.

Innovation 49: Career carousel.

To ensure a continual influx of good and vital personnel one should invest in your own labour market. The HRM department together with the employers' association established a career carousel for small groups of students who have to make a career choice. This creates a focused career orientation where youngsters e are enthused. The hospital is also a social partner in the region and expects that the career carousel contributes to retaining youth in the region and that they do go to the city.

Digital recruitment

Recruitment nowadays only takes place via the hospital's website and vacancy emailing. Applications are only digitally accepted and open applications are no longer accepted. Applications are digitally evaluated and any candidate who came for an application visit, gets a short digital survey to collect remarks and areas for improvement and to increase customer satisfaction.

Procesoptimalisatie
Als de werkdruk toeneemt, dan moet je niet gelijk meer mensen of meer geld inzetten maar eerst kijken of het werkproces efficiënter kan worden ingericht. De belangrijkste reden voor procesoptimalisatie is echter de veiligheid van de patiënt. Procesoptimalisatie is geen einddoel maar meer een continuïteitsdoel. Het proces moet zijn gericht op het verkorten van de doorlooptijd van een patiënt.

Processen optimaliseren met activity trackers
Medewerkers van verschillende diensten hebben een *activity tracker* gekregen. Zo kan worden gekeken wat de belastingen zijn, bijvoorbeeld avonddienst of weekenddienst en kan het logistieke proces in kaart worden gebracht. De geïnterviewde zou willen dat elke patiënt van een *activity tracker* wordt voorzien zodat kan worden gemonitord waar de patiënt langs gaat en hoe lang hij ergens verblijft. Dat is logistiek interessante data.

Digitalisering
Recentelijk is een basis EPD (elektronisch patiënten dossier) in één klap geïmplementeerd. Dit was goed voorbereid met ook externe begeleiding. Ook de medewerkersdossiers zijn gedigitaliseerd. Een voordeel van digitalisatie is de standaardisatie en de snelle verwerking van gegevens. Een nadeel is de inflexibiliteit en dat het andere vaardigheden van de medewerkers vraagt.

Outsourcing
De geïnterviewde is geen voorstander van outsourcing. Het is duur en gaat ten koste van flexibiliteit en loyaliteit.

Loyaliteit
Het ziekenhuis heeft heel loyale medewerkers. Loyaliteit naar elkaar toe is een groot goed maar moet wel juist gericht zijn; dus niet het eigen werk laten liggen om collega's te pamperen.

Toekomstvisie
Samenwerken zal belangrijker worden omdat het steeds minder mogelijk is iets alleen te

Process optimisation
If the workload increases, the first action should not be employing more people or money but first see if the work process can be optimized. However, the main reason for process optimization is the safety of the patient. Process optimization is not an end but rather a continuity plan and should be focussed on shortening the lead time of a patient.

Innovation 50: Process optimisation with activity trackers.
Employees of various departments have been given an activity tracker. This is used to see what the work load is, for example in a weekend service or a night shift, and to map the logistics process. The interviewee would like that every patient is equipped with an activity tracker to monitor route the patient goes through and how long he stays somewhere. This is from a logistical point of view interesting data.

Digitalisation
Recently a basic EHR (electronic health record) was implemented in one swoop. This action was well prepared and guided by an external. The staff records are also digitized. An advantage of digitization is the standardization and rapid data processing. A disadvantage is the inflexibility and need of other skills of the employees.

Outsourcing
The interviewee is not in favour of outsourcing. It is expensive and at the expense of flexibility and loyalty.

Loyalty
The hospital has very loyal employees. Loyalty to each other is a great thing but must be properly focused; so do not leave your own work to pamper colleagues.

Vision of the future
Working together will become more important because it is less and less possible to do

doen. Doe dus niet alleen je werk goed maar zorg dat je werk verbonden is met de voorgaande en de volgende schakel.

Focus
De focus van ziekenhuis #7 ligt op de *huidige fusie* en *procesoptimalisatie*.

something alone. So do not only do your work well but make sure your work is connected with the previous and next link.

Focus
The focus of DGH#7 is on the *current merger* and *processes*.

Coding

Table K1
Potential HRM Innovations in DGH#7

Label	#[a]	Sub-label	Description
			Employment innovations
Recruitment	49	Career carousel	Students have the opportunity to meet at least three professionals so they can orient themselves for a career in healthcare (✓)[b].
			Work innovations
Efficiency	48	Work capacity monitor	Part of an employee survey is measuring the work capacity. The employee get the results instantly. The organisation can facilitate the employee to increase his work capacity (✓).
Efficiency	9	Lean	All managers are trained as Lean manager. The Lean Manager identifies waste on a Lean-board with his employees and then tries to eliminate this waste (✓).
Efficiency	50	Process optimisation with activity trackers	Employees of various departments are equipped with an activity tracker. The collected logistical data is used for process optimisation (✓).

[a]Serial number of HRM innovation.
[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.
Note. Ratio Employment innovations : Work innovations : Organizational innovations = 1:3:0 (25%:75%:0%).

Appendix L: Open Interview DGH#8

The first section of this appendix shows the interview report that is derived from the interview transcription and corrected by the interviewee. The found HRM innovations are serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Introduction
The head of the department HRM, started as a nurse and now is responsible for everything concerning HRM and the translation of the mission statement of the hospital to HRM policies. The HRM department has four different teams: (a) career planning, (b) healthcare, (c) HR health, and (d) HR advice. HRM is now busy with a fusion of two organisations.

Perception of HRM innovation
HRM innovation is a big topic at the moment and work is really changing by innovations. From a technological point of view, but also from a social point of view; young people like you, e.g., don't want a regular day anymore. Being in the middle of a merger slows down HRM innovation. Healthcare is innovating in a faster pace than HRM.

Non-HRM related innovations impacting HRM
Several parts of the organisation show innovations like 3D printing, robots, the increase in speed to scan a body, and the voice-to-text technology. These innovations impact HRM. Together with some external experts, HRM held a workshop about this topic. New technologies will probably reduce the headcount of the HRM department.

Digitalisation and automation
The HRM department still work with paper but envision a paperless environment. Everything concerning recruitment and selection, rewarding, training and development will be accessible via an app which can be used with a smartphone or tablet. As a department manager you can from there start the process of searching for a new employee. The process should be fool-proof. The necessary training for the use of this app is given indoor.

Top employer
The hospital has the predicate Top employer". The award is granted, based on an audit. The concept comes from the industry but was tailored for healthcare.

Innovation 24: Cooperation
The hospital is part of a collective who work together. All HRM department heads meet monthly to discuss the current situation and how they can help each other. Since the hospitals are geographically dispersed, there is no mutual competition.

Strategic Personnel Planning
The HRM department have developed a strategic personnel planning tool. It keeps track of the current situations (e.g. illness, pregnancies) and predicts future needs. HRM tries to enthuse the management and tries to learn them how to use the instrument. But most managers are former nurses and are used to solve problems on the spot. They find it difficult to use because they are used to look at the future and it consumes time to fill the system with data.

I-culture
In healthcare prevails an "I-culture". Employees are not good in feedback and direct confrontation. Furthermore, they are focused on ad hoc problem solving. The merger caused that employees are afraid of losing their jobs and are really busy with themselves instead of what is going on. They are

also afraid that innovations could make them unemployed. The import of management from other sectors mitigated this I-culture.

Learning house
The HRM department have some trainers of their own and if necessary, they buy some training external.

Innovation 51: Outsourcing non-core activities.
The core business of the hospital is caring for their patients. Work that is not part of the core business is outsourced. The hospital is outsourcing several specializations like: the laboratory, pathology, the clinical chemistry lab, the microbiology, and the sterilisation department. Cleaning and meal preparation are not outsourced. The advantage of outsourcing is that it is cheaper. What the hospital wants from their suppliers is defined in an SLA (service level agreement).

Lean
One of the two locations is addicted to Lean. They "leaned away" things like closets. The interviewee thinks this is a bit extreme however.

Training & education
Physicians, nurses, as well as kitchen staff, all have to be accredited periodically to be allowed to do their job.

Overrepresentation of young woman
The average age in healthcare work is increasing. This is however not a problem because they are really loyal and their absenteeism is low. Healthcare workers are often young women. They often want to have children and they don't want to work full-time, in the weekend or night shifts. The culture in the Netherlands is still that the mother is staying at home if a child is ill. Part time work is at the cost of teamwork.

The management of the hospital has not always enough negotiating skills to enforce healthcare workers to work at unsalable working hours.

Sharing best practices
The principle of sharing best practices seems in the healthcare sector more difficult than in other sectors.

Innovation 52: Participatory healthcare.
Bas Bloem is a neurologist. He had a Parkinson patient he couldn't help. The traditional paradigm is: "I'm the doctor and you're the patient and I will tell you …". He shifted this paradigm and set the patient central by stepping into his shoes and look at the surroundings of this patient. He sees the patient as a partner and together they face the challenges of the patient.

Power of the insurance company
In the Netherlands, the insurance company is representing us as an insurance taker, and that's strange, because if one becomes a patient, he has to go through his insurance company to the hospital. And the insurance company is telling him where to go, why to go, and when to go. So the insurance companies are really powerful.

Increasing life expectancy
The interviewee predicts that healthcare will become more expensive in the future. Prevention will be more expensive and also multimorbidity[14]. Girls that are born right now, will have an average age

[14] *Multimorbidity is defined as the co-occurrence of two or more chronic medical conditions in one person*

of 100 years. This raises the ethical question if one wants to become 100 years. It also will have an impact on HRM. Other skill sets will be needed.

Shift of responsibilities to lower levels
For example nurses are able to do some techniques, which some years ago only doctors did. This shift of responsibilities to lower levels is partly cost driven. It also led to new functions as the nurse practitioner or the nurse specialist.

Focus
The focus of DGH# 8 is on the *current merger* and *outsourcing*.

Coding

Table L1
Potential HRM Innovations in DGH#8

Label	#[a]	Sub-label	Description
			Work innovations
Efficiency	51	Outsourcing non-core activities	The core business of the hospital is caring for their patients. Work that is not part of the core business is outsourced (×)[b].
			Organisational innovations
Culture	52	Participatory healthcare	A physician sees the patient as a partner and together they face the challenges of the patient (×).[15]

[a]Serial number of HRM innovation.
[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.
Note. Ratio Employment innovations : Work innovations : Organizational innovations = 0:1:1 (0%:50%:50%).

(Multimorbidity.NET, 2011).

[15] This is not an HRM innovation the hospital implemented. The interviewee only referred to it.

Appendix M: Open Interview DGH#9

The first section of this appendix shows in the first column the Dutch interview report that is derived from the interview transcription and corrected by the interviewee. The second column shows the English translation with the found HRM innovations serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Dutch	English
Eerste indruk De ondersteunende functies van ziekenhuis #9 zijn ondergebracht in een afzonderlijk gebouw.	*First impression* The support functions of DGH# 9 are housed in a separate building.
Introductie In de basis is doel van de afdeling P&O om tussen leidinggevenden en medewerkers te faciliteren. De afdeling P&O geeft hierin de (wettelijke) kaders en biedt instrumenten aan. Men praat bewust niet met de medewerkers omdat dit is de taak is van de managers. De afdeling P&O kan desgewenst wel helpen coachen.	*Introduction* Essentially, the objective of the HR department is to facilitate between managers and employees. The HR department provides the (legal) framework and instruments. They don't talk to the employees on purpose since this is the responsibility of the managers. The HR department can help coach if desired.
Gepercipieerde mate van innovatie De definitie van innovatie binnen hrm is om hier op een andere manier naar te kijken. Binnen P&O zijn geen wezenlijke innovaties.	*Perception of HRM innovation* The definition of innovation within HRM is to look at this goal in a different way. Within HRM are no substantial innovations.
Vacaturemelding per e-mail Ziekenhuis #9 is een gefuseerde organisatie. In de fusieopdracht zit een afbouwdoel. Het sociaal plan garandeert echter werkzekerheid en gaat uit van vrijwillige mobiliteit. Een vacature wordt eerst intern beschikbaar gesteld. Daarom is het belangrijk dat medewerkers op de hoogte worden gehouden van nieuwe vacatures. Hoe groter de organisatie echter, hoe lastiger het is om alle medewerkers te bereiken. Daarom worden alle vacatures naar alle medewerkers ge-e-maild. Dit is een goedkope oplossing, het maakt medewerkers duidelijk dat er kansen zijn en medewerkers kunnen niet meer zeggen dat ze niet op hoogte waren van een nieuwe vacature.	*Innovation 53: Internal job alert by email.* DGH# 9 is a merged organization. The merger instruction contains a reduction target. The social plan guarantees job security and is based on voluntary mobility. Any vacancy shall be first made available internally. Therefore it is important that employees are kept informed of new jobs. The larger the organization, however, the more difficult it is to reach all employees. Therefore, all vacancies are emailed to all employees. This is a cheap solution, it makes employees clear that there are opportunities and employees cannot say that they were not aware of a job opportunity.
Informatietoegankelijkheid Het ene ziekenhuis liep verder voorop dan het andere ziekenhuis. Zo had de een nog papieren personeelsdossiers terwijl de andere al werkte met digitale personeelsdossiers. Dit vergroot	*Innovation 54: Three-click rule HRM website.* One hospital was further ahead than the other hospital. E.g., one hospital still had paper personnel files, while the other already worked with digital personnel files. This not only

niet alleen de complexiteit van het beheer van de hrm-systemen, maar zorgt ook voor een enorme toename van de hoeveelheid informatie voor de medewerkers. Er zijn ongeveer 3000 pagina's beschikbaar voor de medewerkers. De organisatie verwacht niet dat de medewerkers deze informatie kent, maar ze moeten het kunnen vinden als ze het nodig hebben. Daarom wordt hrm-informatie op het intranet zodanig ingericht dat een medewerker binnen drie klikken bij de gewenste informatie kan komen. Bovendien wordt de toegankelijkheid tot de informatie vergroot door de informatie helder de formuleren. Tot slot wordt gebruik gemaakt van multimedia om informatie te ontsluiten.

Met het groter worden van de organisatie, is behoefte aan communicatie toegenomen en is er meer te communiceren. Bovendien zijn ziekenhuizen 24/7-organisaties zodat er nooit een moment is waarop iedereen aanwezig is. Door deze combinatie van factoren is het voor de afdeling P&O moeilijker geworden om de organisatie te bereiken. De afdeling P&O is op zoek naar de combinatie van communicatiemiddelen die bij een bepaald doel het meeste rendement opleveren. Hierbij wordt onder andere gebruik gemaakt van: Facebook, foldertjes, postertjes, bijeenkomsten, prijsvragen, inloopsessies, flyers, tot persoonlijke brieven, meldingen op het intranet, het personeelskrantje, en spreektijd tijdens vergaderingen.

Wanneer er voor een medewerker standaard iets verandert, tenzij hij actie onderneemt, is het van eminent belang dat alle medewerkers worden bereikt. In dergelijke gevallen wordt een groot deel van de communicatiemiddelen ingezet.

increases the complexity of the management of the HRM systems, but also results in a proliferation of the amount of information for employees. There are approximately 3,000 pages available for employees. The organization does not expect employees to know this information, but they should be able to find it when needed. Therefore, HRM information on the intranet is arranged in such a way that within three clicks an employee can get to the desired information. Moreover, accessibility to information is increased by clear formulation. Finally, multi-media systems are used to unlock information.

With the organization's growth, the need for communication increased and there is more to communicate. Moreover, hospitals are 24/7 organizations so that there is never a moment when everyone is present. This combination of factors has made it difficult for the HR department to reach the organization. The HRM department is looking for the combination of communication tools that deliver the highest return for a given purpose. This will include use of: Facebook, leaflets, posters, meetings, competitions, walk-in sessions, flyers, personal letters, messages on the intranet, employee newspapers and speaking time at meetings.

When, by default, something changes f for an employee, unless he takes action, it is extremely important that all employees are reached. In such cases, a large part of the means of communication is used.

Geautomatiseerde tijds-, medewerker- en klantregistratie

De meeste medewerkers van de thuiszorgtak van ziekenhuis #9 werken buiten het kantoor. Daarom hebben allemaal een tablet en een smartphone gekregen. Alle communicatie, zoals medewerkerstevredenheid en klanttevredenheid, gaat bijvoorbeeld via Apps.

Innovation 55: Automated presence registration & employee/customer identification.

Most employees of the homecare branch of DGH# 9 work outside the office. Therefore, they all received a tablet and a smartphone. All communications such as employee satisfaction and customer satisfaction, for example, goes

Omdat de medewerkers deze tablet ook privé mogen gebruiken, ontstaat een verwevenheid tussen werk en privé en worden ze optimaal bereikt.

Alle cliënten hebben een pasje aan de binnenkant van de deur hangen. De medewerker houdt zijn daar bij aankomst en bij vertrek zijn smartphone tegenaan om zich registreren. Deze tijds-, medewerker- en cliëntidentificatie wordt gebruikt om automatisch: (a) de factuur voor de klant te maken, (b) de loonbetaling bij te werken. Met de tablet kan dan nog eventueel het cliëntdossier en dergelijke worden bijgewerkt.

Medewerkertevredenheidsonderzoeken op continuebasis

Traditioneel werd tweejaarlijks of driejaarlijks een medewerkertevredenheidsonderzoek uitgevoerd. Een triviale en tijdelijke ergernis bij de medewerkers op het moment van het onderzoek, kan de meeting ernstig negatief beïnvloeden. Bijvoorbeeld een koffieautomaat die op dat moment stuk is.

Dit kan worden ondervangen door wekelijks de medewerkers te vragen om de tevredenheid in de afgelopen week met een rapportcijfer te waarderen op een schaal van 1 t/m 10. De reden is niet belangrijk, het gaat alleen om de persoonlijke beleving van tevredenheid. Na een periode van nulmetingen, kunnen afwijkingen eenvoudig worden gemeten en kan gelijk bij de medewerkers worden nagevraagd wat de reden achter de afgenomen, of toegenomen, tevredenheid is. Vervolgens kan hier gelijk op worden geacteerd en vervolgens naar de medewerkers worden gecommuniceerd welke acties zijn ondernomen. Hierdoor wordt bereikt dat medewerkers beseffen dat ze er toe doen.

Dit concept is ook bij de thuiszorg ingevoerd. Via een App wordt op willekeurige basis een cliënt geselecteerd die gevraagd wordt om de tevredenheid over de op die dag aangeboden zorg in een rapportcijfer uit te drukken. Je hebt dan een instrument dat snel werkt en je haalt de variatie en complexiteit uit het proces zodat eventueel snel kan worden bijgestuurd.

through Apps. Because the employees are also allowed to use this tablet private, work and private communication is intertwined, and they are reached optimally.

All clients have a pass on the inside of the door. At arrival and departure, the employee holds his smartphone against the pass to register. This time present, employee and customer identification is used to automatically: (a) make the invoice for the client, (b) to update the wage administration. Optionally, with the tablet, they can e.g. update the file of the client.

Innovation 56: Continuous measurement of employee satisfaction.

Traditionally an employee satisfaction survey was conducted biennial or triennial. A trivial and temporary annoyance among employees during the survey can seriously affect the measurement negatively. For example, a vending machine, that is broken at that time.

This can be overcome by weekly asking employees to rate satisfaction in the past week with a score on a scale of 1/10. The reason is not important, it is only about the personal perception of satisfaction. After a period of baseline measurements, deviations can be easily measured and the employees can be asked instantly what the reason behind their decreased or increased, satisfaction is. Subsequently, immediately actions can be taken and communicated towards the employees. This ensures that employees know that they matter.

This concept has also been introduced in home care. Via an App a client selected randomly is asked to express satisfaction for the offered care that day in a grade. You than have a tool that works fast and you get the variety and complexity out of the process so that necessary adjustments can be made quickly.

Vitaliteitsweek

Ziekenhuis #9 heeft jaarlijks een vitaliteitsweek. Hier wordt veel aandacht aan besteed en is dan ook binnen het ziekenhuis een begrip. Het begrip vitaliteit wordt zo ruim mogelijk geïnterpreteerd. Middels allerlei instrumenten, zoals bijvoorbeeld checks, worden medewerkers geprikkeld om meer te bewegen en dergelijke. Sommige activiteiten worden gesponsord. Bijvoorbeeld, omdat veel medewerkers staan komt gratis een orthopedisch bedrijf schoenen aanmeten. De week wordt afgesloten met een vitaliteitsloop.

De organisatie is niet homogeen, het zijn eigenlijk meerdere organisaties in één. Hierdoor hebben verschillende afdelingen verschillende behoeften. Zo kan een bepaalde afdeling bovengemiddeld veel medewerkers met obesitas hebben, of een bepaalde afdeling heeft bovengemiddeld veel verzuim. Hier kan dan tijdens de vitaliteitsweek extra aandacht aan worden besteed.

De afdeling P&O overweegt om de vitaliteitsweek aan te vullen met een aantal vitaliteitsmomenten om meer continuïteit in het proces te brengen. Op dit moment is de organisatie hiervoor echter nog niet stabiel genoeg.

Innovation 57: Vitality week.

DGH# 9 holds a vitality week annually. A lot of attention is payed and it is therefore well known. The concept of vitality is interpreted as broadly as possible. Through various instruments, such as checks, employees are encouraged to exercise more and the like. Some activities are sponsored. For example, because many employees have to stand, free an orthopaedic company fits shoes for free. The week ends with vitality run.

The organization is not homogeneous, it actually consists of several organizations in one. Therefore, different departments have different needs. For example, a particular department can have an above average of employees with obesity, or the absenteeism of a particular department is above average. This can be given extra attention during the vitality week.

The HR department is considering to complement the vitality week with some vitality moments to bring more continuity in the process. At present, however, the organization is not yet stable enough for this.

Persoonlijke ontwikkeling

Persoonlijke ontwikkeling past, net als de vitaliteitsweek, onder de noemer duurzame inzetbaarheid. Hoewel de focus vaak ligt op groei, kan persoonlijke ontwikkeling ook inhouden dat bewust een stapje terug wordt gedaan. De afdeling P&O probeert de medewerkers duidelijk te maken dat zij op het gebied van persoonlijke ontwikkeling hun eigen verantwoordelijkheid moeten nemen.

Personal development

Personal development resorts, like the vitality week, under the heading of sustainable employability. Although the focus is often on growth, personal development may also involve a deliberate step back. The HRM department is trying to make the employees aware that they must take their own responsibilities in the field of personal development.

ERP-hr-systeem

In het Sittardse ziekenhuis is het personeelssysteem is deels geautomatiseerd met het ERP (Enterprise Resource Planning)-systeem SAP (Systeme, Anwendungen und Produkte); op de locatie Heerlen is men nog niet zover. Begin 2017 wordt hier een verdere stap in gemaakt. De P&O-gegevens worden dan transparanter voor zowel medewerkers als

ERP HRM system

In hospital of Sittard, the personnel system is partially automated with the ERP (Enterprise Resource Planning) system SAP (Systeme, Anwendungen und Produkte); the location Heerlen is not ready yet. Early 2017 a next step will be made here. The HRM data will be more transparent for both employees and managers. Both groups may also enter your own data. To

managers. Beide groepen kunnen bovendien zelf gegevens invoeren. Hiervoor zijn de systemen ESS (Employee Self Service) en MSS (Management Self Service) beschikbaar. Het is de wens van de afdeling P&O om ook het aspect opleidingen in SAP onder te brengen.

Beoordelingssysteem
De huidige geautomatiseerde beoordelingssystemen beloven veel maar kunnen dit vooralsnog niet waarmaken en het kan geen vervanger zijn voor het persoonlijke gesprek. Geautomatiseerde beoordelingssystemen neigen ertoe om zaken te over-structuren en daarmee te over-versimplificeren zodat de nuance verdwijnt.

Het beste beoordelingssysteem is daarom een wit vel papier als basis voor een persoonlijk gesprek. Een systeem moet slechts ondersteuning bieden aan een proces, met name voor de zaken die weinig toevoegen zoals het automatisch invullen van de naam van de medewerker.

Harmonisatie van hr-systemen
Door de fusie heeft ziekenhuis #9 nu te maken met allerlei verschillende hr-systemen. Dit is voor de managers lastig. Zo worden nu bijvoorbeeld medewerkers die hetzelfde werk doen verschillend verloond. Bij een aantal hr-systemen is er alleen een verschil in revisie. Dit is eenvoudig te harmoniseren door beide hr-systemen op te hogen naar de laatste revisie. Verschillende losse kleine hr-systemen worden vervangen door grotere systemen. Behalve een harmonisatieslag, wordt hier ook een kostenreductie mee gerealiseerd.

Functiegebouw
Een functiegebouw en een functiewaardering bepalen in de basis wat een medewerker gaat verdienen. De afdeling P&O heeft een nieuw functiegebouw met functiestraten gekocht dat al in een aantal andere ziekenhuizen wordt gebruikt.

De ongeveer 80 verschillende ziekenhuizen in Nederland doen in principe allemaal hetzelfde werk en gebruiken allemaal dezelfde FWG (functiewaardering gezondheidszorg). Toch hebben ze ieder voor zich verschillende

serve this purpose, the systems ESS (Employee Self Service) and MSS (Management Self Service) are available. It is the wish of the HRM department to also accommodate the aspect of training in SAP.

Appraisal system
The current automated appraisal systems promise a lot but do not yet realize this and it cannot be a substitute for the personal conversation. Automated appraisal systems tend to over-structures and therefore to over-simplify so the nuance disappears.

The best assessment is therefore a white sheet of paper as a basis for a personal conversation. A system should only support a process, especially for things that add little as automatically fill in the name of the employee.

Harmonizing HRM systems
Due to the merger, DGH# 9 now has to cope with all kinds of different HRM systems. This is difficult for managers. For example, employees who do the same work are rewarded differently. Some HRM systems differ only in revision. They are easily harmonized by stepping both systems to the latest revision. Several separate small HRM systems are replaced with larger systems. Besides harmonization, also cost reduction is achieved.

Innovation 58: Harmonisation of job classification.
A job classification and job evaluation determine the base for what an employee will earn. The HRM department has purchased a new job classification with function blocks that is already used in a number of other hospitals.

The approximately 80 different hospitals in the Netherlands basically all do the same work and they all use the same FWG (job evaluation healthcare). Yet they each have on an individual base made different profiles. The HRM

profielen gemaakt. De P&O-afdeling van ziekenhuis #9 zou graag zien dat harmonisatie van het functiegebouw wordt opgenomen in de cao. Dit zou een kostenbesparing opleveren in de hele Nederlandse gezondheidszorg.

Uniforme leiderschapstraining

Ziekenhuis #9 had verschillende leiderschapstrainingen voor managers, specialisten, en verpleegkundigen. Deze groepen moeten echter in de praktijk nauw met elkaar samenwerken en zijn afhankelijk van elkaar. Dit kan worden gevisualiseerd in een driehoek waarbij deze drie partijen met elkaar verbonden zijn en waarbij de patiënt centraal staat. Deze driehoek is opgenomen in een cirkel die de staf en ondersteuning vertegenwoordigd (zie figuur M1). De P&O-afdeling heeft alle afzonderlijk leiderschapstrainingen vervangen door een algemene leiderschapstrainingen voor alle partijen. Dit concept is getest in een pilot en alle partijen zijn even enthousiast.

Ziekenhuis #9 is waarschijnlijk het eerste ziekenhuis die op deze manier leiderschapstrainingen geeft. De basis is afgeleid van *Clinical leadership*. Dit komt met name voort uit de hoek van de medische specialisten en is leiderschap voor medisch specialisten.

De afdeling P&O probeert deze leiderschapstraining niet te structureren in processen, maar dit gewoon aan de deelnemers zelf over te laten. De deelnemers worden de ambassadeurs en die het concept verder proberen uit te rollen.

department at DGH# 9 would like to see a harmonization of the job structure included in the collective agreement. This would result in cost savings throughout the Dutch healthcare system.

Innovation 59: Unified leadership training.

DGH# 9 had several leadership trainings for managers, specialists and nurses. These groups ,in practice, must closely work together and depend on each other. This can be visualized in a triangle in which the three parties are connected with each other, and wherein the patient is central. This triangle is embedded in a circle, representing staff and support (see Figure M1). The HR department has replaced all individual leadership training through a unified leadership training for all parties. This concept has been tested in a pilot and all parties are equally enthusiastic.

DGH# 9 is probably the first hospital that provides leadership training in this way. The base is derived from Clinical Leadership. This emanates mainly from the domain of medical specialists and leadership for medical specialists.

The HRM department is not trying to structure this leadership training processes, but just leaves it to the participants. The participants become ambassadors who try to roll out the concept further.

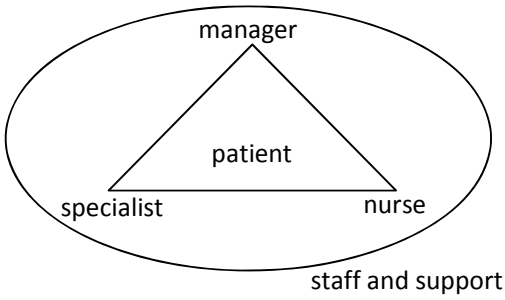


Figure M1. Uniform Leadership, Relation between the Different Roles.

Focus	*Focus*
De focus van ziekenhuis #9 ligt op *systemen*.	The focus of DGH#9 is on *systems*.

Coding

Table M1

Potential HRM Innovations in DGH#9

Label	#[a]	Sub-label	Description
			Employment innovations
Recruitment	53	Internal job alert by email	New vacancies are emailed to all employees (✓)[b].
Learning	59	Unified leadership training	Managers, specialists and nurses work closely together and depend on each other. Instead of different leadership trainings for these different targets groups, they all follow the same unified leadership training (×).
			Work innovations
Efficiency	55	Automated presence registration & employee/customer identification	At arrival and departure, the employee holds his smartphone against the pass of the customer to register. This presence registration, employee and customer identification is used to automatically: (a) make the invoice for the client, (b) to update the wage administration (✓).
Working conditions	56	Continuous measurement of employee satisfaction	A minor incident during an e.g. biannual employee satisfaction survey can have a major impact on the result. By measuring weekly, the results become more reliable and immediately actions can be taken and communicated towards the employees (✓).
Efficiency	58	Harmonisation of job classifications	Dutch hospitals basically all do the same work and use the same FWG (job evaluation healthcare) but use different profiles. Harmonization of the job structure and embedding in the collective agreement would save cost throughout the Dutch healthcare system (×).
Working conditions	57	Vitality week	In an annual vitality week, employees are made aware of the importance of health and encouraged to change their live style (✓).
Efficiency	54	Three-click rule HRM website	All HRM related information is accessible within maximal three mouse clicks (✓).

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio Employment innovations : Work innovations : Organizational innovations = 2:5:0 (29%:71%:0%).

Appendix N: Open Interview DGH#10

The first section of this appendix shows the interview report that is derived from the interview transcription and corrected by the interviewee. The found HRM innovations are serially numbered. The second section shows an overview of these HRM innovations, labelled conform Table 1 and with a description.

Interview Report

Introduction
The interviewee previously worked as an HRM manager for a decentralized organisation with different locations where he had only functional responsibility, not hierarchically. The HRM part of the hospital is centralized and (s)he is functional as well as hierarchical responsible. It is a position directly under the executive board.

Perception of HRM department
HRM fails to show what it can contribute to an organisation. Managers look at HRM mostly as administrating and processing, and making the letters when someone enters or goes. So the organisation is not aware what HRM can add in for instance in learning, development, cultural change, talent development, or being a partner in primary processes.

Perception of HRM innovation
Innovation is everything that adds value and adds more value than it does. HRM is not renowned for its ability to innovate.

Innovation 60: Outsourcing people related quadrants of the model of HR from Ulrich.
Innovation 23: Flat HRM organisation.
The interviewee just wrote a reorganisation plan to reduce HRM headcount by 20 per cent. The headcount reduction is possible because the HRM department does things that don't add value. Furthermore, the HRM department is now hierarchical and tall. The interviewee wants to delayer the organisational structure.

To accomplish this, (s)he makes use of the model of HR from Ulrich which defines the four roles HRM should fulfil (see figure N1).

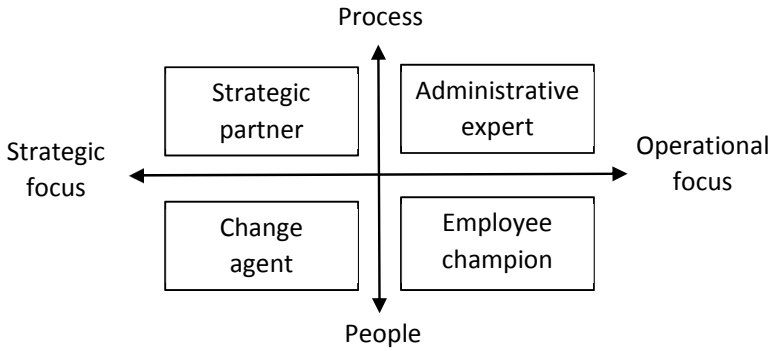


Figure N1. Model of HR (Ulrich, 1997).

The process related quadrants have to be ok because they are part of the job. The interviewee wants to outsource a part the people quadrants. The logic behind this is that after a couple of years permanent employees are not state of the art anymore, are not innovative anymore. This is, however, only possible under the conditions that there is a good and automated HRM system and that employees are able to function in a network.

Innovation 61: Networking.

Employees must be able to function in a network, not only inside the hospital, but also outside the organisation. To accomplish this, the organisation has to redefine function descriptions with other competences and has to facilitate because an employees who has been behind a desk for 20 years without working on the external network doesn't really know how to do that.

The advantage of being part of networks is one knows what's going on, to learn, to exchange ideas and to accelerate in that way. There are a lot different networks in which an employee can participate. In a network, one can not only collect information, one also has to bring in knowledge.

By this, one takes responsibility for their own adding value. But especially under the elderly in the HRM department, there is some resistance to this change.

HRM headcount reduction by digitalisation

The interviewee feels that although in itself, digitalisation is not an HRM innovation, it has a big impact on the organisation and affects all the regular HRM processes. The hospital is currently digitalizing all basic processes in a workflow. This will also contribute to the headcount reduction of 20 per cent. Most employees, however, are happy with this modernisation.

Sustainable employability

The generation with who have worked for quite a while, don't really realize that they retire later. This means also that they don't contemplate their vitality, employability, and workability. On the one hand, it is the responsibility of the employee. He or she must think about what he or she can do to add value for the employer. On the other hand, it is also the responsibility of the employer to support the employee to remain employable.

Tearing down departmental walls

The hospital has different departments with their own skill sets and responsibilities. But the problems the hospital face nowadays need an integrated approach. For example, in everything they do, they need communication skills, writing skills or creative skills in terms of layout and presentation skills.

Focus

The focus of DGH#10 is on *HRM headcount reduction* and *processes*.

Coding

Table N1

Potential HRM Innovations in DGH#10

Label	#[a]	Sub-label	Description
			Work innovations
Efficiency	60	Outsourcing people related quadrants of Ulrich model	The HRM model from Ulrich defines four roles. The people related roles: (a) strategic partner and (b) change agent, and the process related roles: (c) administrative expert and (d) employee champion. Partly outsourcing the people related roles, improves the quality of these roles and reduces the HRM headcount (×)[b].
Sharing	61	Networking	Employees are stimulated to participate in various networks. The advantage of being part of networks is that one knows what's going on, to learn, to exchange ideas and to accelerate in that way (×).
			Organisational innovations
Culture	23	Flat organisation	By focussing on short communication line and laying responsibilities as low in the organisation as possible, a flat organisation is established. The logic behind this is that it improves efficiency (×).

[a]Serial number of HRM innovation.

[b]✓: The HRM innovation is implemented; ×: The HRM innovation is not yet implemented.

Note. Ratio Employment innovations : Work innovations : Organizational innovations = 0:2:1 (0%:67%:33%).

Appendix O: Letter, Request for Review

This appendix shows the letter, sent to the external reviewer 14th June 2016.

Dear Marco Dijkstra,

Please, find enclosed with this digital letter, three interview reports. Will you:

a) identify the HRM innovations in these interview reports;
b) give every HRM innovation a name;
c) label all identified HRM innovations conform Table O1.

As background information herewith the definitions of the three categories of HRM innovation:

a) *Employment innovation*: HRM innovations that are related to more traditional employment issues;
b) *Work innovation*: new practices that are related to the design of work;
c) *Organizational innovation*: innovations with a strong HRM component that fit a broader category than employment or work innovations.

Table O1

Categorised Labels

Category of HRM innovation		
Employment innovation	Work innovation	Organizational innovation
Learning[a]	*Communication*	*Culture*[d]
Recruitment	*Efficiency*	
Talent management[b]	*Sharing*	
	Working conditions[c]	

[a]"The development of insights, knowledge, and associations between past actions, the effectiveness of those actions, and future actions."

[b]"In the broadest possible terms, TM is the strategic management of the flow of talent through an organisation. Its purpose is to assure that a supply of talent is available to align the right people with the right jobs at the right time based on strategic business objectives."

[c]"In job evaluation literature, working conditions imply two dimensions: environmental conditions and hazards.".

[d]"regularities in the behaviour, internal and external, of the members of a society, excluding those regularities which are purely hereditary."

Note. Categorisation of HRM innovations conform Van den Broek – van Dongen (2014)Van den Broek – van Dongen (2014). The labels are in italic. This table is a copy of Table 1 in the thesis.

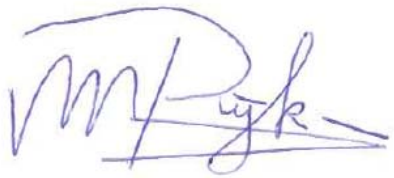
At your convenience, you can use the following fill table:

Table O2

Fill Table HRM Innovations for External Reviewer for the Hospitals #2, #4 and #10

HRM innovation	Label
Hospital #2	
Hospital #4	
Hospital #10	

Kind regards,



Marco Rijkeboer

Appendix P: Inter-rater Reliability Test of Coding

This appendix first shows the labelled HRM innovations found by the external reviewer for the DGHs #2, #4 and #10. This result is confronted with our labelled HRM innovations for these DGHs

Table P1

HRM Innovations from External Reviewer for the DGHs #2, #4 and #10

HRM innovation	Label
Hospital #2	
Chasing dreams	Career development
Lean and e-learning	Learning
Trained process nurse	Efficiency
Take over each other's work	Culture
Individual must be held accountable	Communication
Facilitate as good as possible	Working conditions
More towards a control function	Culture
Hospital #4	
Personnel administration processed by employee	Efficiency
E-learning	Learning
Multiple choice of employment	Working conditions
Working on vitality start earlier	Culture
Crew resource management	Talent management
Training is outsourced	Learning
Audits to keep rules and processes up-to-date	Efficiency
General rules	Culture
Job first is published internally	Communication
Shift from oral expression to writing skills	Communication
Blending of work-related and private-related information	Culture
Contact regulations	Culture
Hospital #10	
HRM department do things that don’t add value	Efficiency
HRM model from Ulrich	Culture
Outsource part	Efficiency
Automated HRM system	Efficiency
Function in a network	Culture
Facilitate other competences	Recruitment
Digitalisation	Efficiency
Integrated approach	Communication

Table P2

Confrontation of HRM Innovations from External Reviewer with HRM Innovations from Researcher for the DGHs #2, #4 and #10

HRM innovation with label from External Reviewer	HRM Innovations with label from Researcher
	Hospital #2
Trained process nurse (efficiency)	Process nurse (efficiency)
Chasing dreams (career development)	
Facilitate as good as possible (working conditions)	
Individual must be held accountable (communication)	
Lean and e-learning (learning)	
More towards a control function (culture)	
Take over each other's work (culture)	
	Hospital #4
Contact regulations (culture)	Contact regulations (culture)
Crew resource management (talent management)	Crew resource management (culture)
E-learning (learning)	E-learning (learning)
Personnel administration processed by employee (efficiency)	Delegation HRM administration to employee (efficiency)
Working on vitality start earlier (culture)	Preventive sustainable employability (working conditions)
Audits to keep rules and processes up-to-date (efficiency)	
Blending of work-related and private-related information (culture)	
General rules (culture)	
Job first is published internally (communication)	
Multiple choice of employment (working conditions)	
Shift from oral expression to writing skills (communication)	
Training is outsourced (learning)	
	At any time a tailored meal (culture)
	Connecting MC of employment to company goals (culture)
	Digitization medical library (learning)
	Hospital #10
Function in a network (culture)	Networking (sharing)
HRM model from Ulrich (culture)	Outsourcing people related quadrants of Ulrich model (efficiency)
Automated HRM system (efficiency)	
Digitalisation (efficiency)	
Facilitate other competences (recruitment)	

(continued)

HRM innovation with label from External Reviewer	HRM Innovations with label from Researcher
HRM department do things that don't add value (efficiency) Integrated approach (communication) Outsource part (efficiency)	
	Flat organisation (culture)

Note. The labels are between brackets. The by the external reviewer coded interview reports are available upon request. The coding from the researcher is derived from the coding of the interview reports.

The external reviewer found 27 HRM innovations, we found 12 HRM innovations. 8 HRM innovations were in common and 4 of them had the same coding.

Appendix Q: Acceptance Test of Potential HRM Innovations in DGHs from Open Interviews

In this appendix all potential HRM innovations in DGHs, that were found in the open interviews, are confronted with the in the research design defined acceptance criteria.

Table Q1

Acceptance Test of Potential HRM Innovations in DGHs from Open Interviews

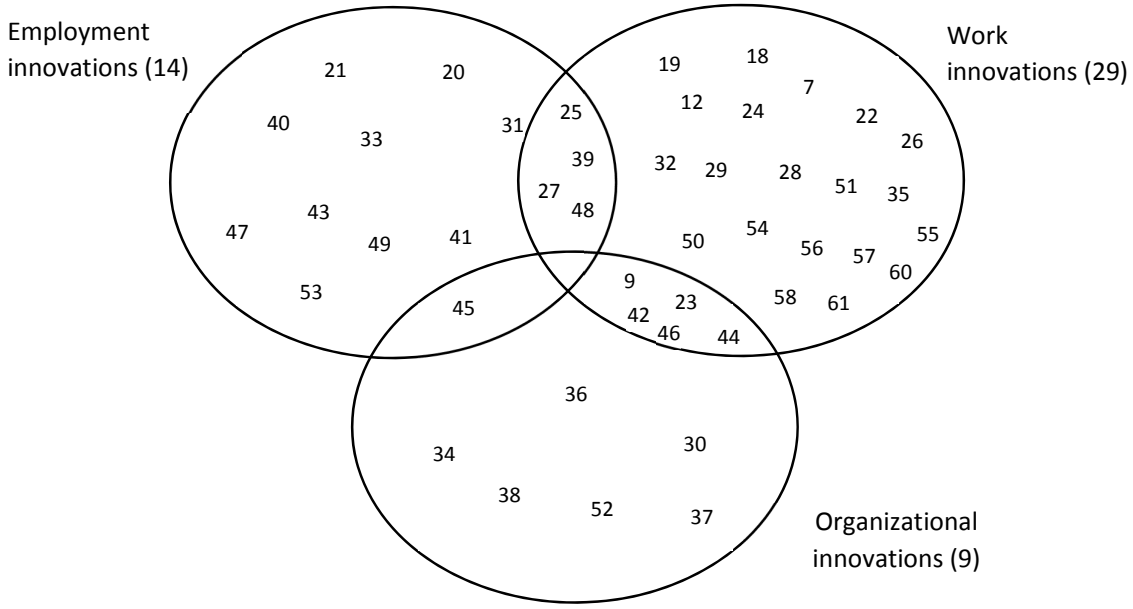
Potential HRM innovation	Acceptance criterion[a]				Accep-tance[b]
	(a)[c]	(b)[d]	(c)[e]	(d)[f]	
7: Gemba.	✓	✓	✓	✓	✓
9: Lean.	✓	✓	✓	✓	✓
12: Big Data.	✓	✓	✓	✓	✓
18: Chain of care.	✓	✓	✓	✓	✓
19: HRM business partner.	✓	✓	✓	✓	✓
20: E-learning via internet.	✓	✓	✓	✓	✓
21: Talent management.	✓	✓	✓	✓	✓
22: Prevention officer.	✓	✓	✓	✓	✓
23: Flat HRM organisation.	✓	✓	✓	✓	✓
24: Cooperation.	✓	✓	✓	✓	✓
25: Vacancy pool.	✓	✓	✓	✓	✓
26: Coopetition.	✓	✓	✓	✓	✓
27: Process nurse.	✓	✓	✓	✓	✓
28: HRM workflow.	✓	✓	✓	✓	✓
29: Database.	✓	✓	✓	✓	✓
30: Corporate values derived from employees values.	✓	✓	✓	✓	✓
31: Blended learning.	✓	✓	✓	✓	✓
32: Delegation HRM administration to employee.	✓	✓	✓	✓	✓
33: Digitization medical library.	✓	✓	✓	✓	✓
34: Connecting MC of employment to company goals.	✓	✓	✓	✓	✓
35: Preventive sustainable employability.	✓	✓	✓	✓	✓
36: Crew resource management.	✓	✓	✓	✓	✓
37: At any time a tailored meal.	?[g]	✓	✓	✓	?
38: Contact regulations.	✓	✓	✓	✓	✓
39: Collective calculation of training needs.	✓	✓	✓	✓	✓
40: Internal employment agency.	✓	✓	✓	✓	✓
41: Train-each-other program.	✓	✓	✓	✓	✓
42: Magnet hospital.	✓	✓	✓	✓	✓
43: Discretionary training.	✓	✓	✓	✓	✓
44: Work half time and get paid 75% for 60+ employees.	✓	✓	✓	✓	✓
45: Train employees how to cope with change.	✓	✓	✓	✓	✓
46: Old boys network.	✓	✓	✓	✓	✓
47: E-learning in leisure.	✓	✓	✓	✓	✓
48: Work capacity monitor.	✓	✓	✓	✓	✓
49: Career carousel.	✓	✓	✓	✓	✓
50: Process optimisation with activity trackers.	✓	✓	✓	✓	✓
51: Outsourcing non-core activities.	✓	✓	✓	✓	✓
52: Participatory healthcare.	✓	?[i]	✓	?[h]	?
53: Internal job alert by email.	✓	✓	✓	✓	✓
54: Three-click rule HRM website.	✓	✓	✓	✓	✓
55: Automated presence registration & employee/customer identification.	✓	✓	✓	✓	✓
56: Continuous measurement of employee satisfaction.	✓	✓	✓	✓	✓
57: Vitality week.	✓	✓	✓	✓	✓
58: Harmonisation of job classification.	✓	✓	✓	✓	✓
59: Unified leadership training.	✓	✓	✓	✓	✓
60: Outsourcing people related quadrants of the model of HR from Ulrich.	✓	✓	✓	✓	✓
61: Networking.	✓	✓	✓	✓	✓

[a]Is the potential innovation: (a) An HRM innovation? (b) Applicable to general hospitals? (c) Applicable to hospitals in the

Netherlands? (d) Perceived as new to the hospital? The possible answers are: yes (✓), possibly (?) ,no (×).
[b]The potential HRM innovations are, conform the defined rules of acceptance regarded as: accepted (✓), questionable (?) or, rejected (×).
[c]Since we asked the interviewees specifically for *HRM* innovations, we assumed them all as perceived as new to the hospital unless the interviewees specifically stated that this is not the case.
[d]Since we conducted all our open interviews at general hospitals, this acceptance criterion was applicable for almost all potential HRM innovations.
[e]Since we conducted all our open interviews at Dutch hospitals, this acceptance criterion was applicable for all potential HRM innovations.
[f]Since we asked the interviewees specifically for HRM *innovations*, we assumed them all as perceived as new to the hospital unless the interviewees specifically stated that this is not the case.
[g]Although this potential HRM innovation requires more flexibility and another way of working of working of the kitchen staff, the impact seems to be more on the side of the patient.
[h]The interviewee refered to Bas Bloem who works at UMC Utrecht (University Medical Centre) wich is not a DGH. Nevertheless, It can be an HRM innovations in a DGH.
[i]The interviewee did not mentioned that it was applicable in the DGH he is working for.

Appendix R: Distribution of HRM Innovations from DGHs from Open Interviews

This appendix shows the distribution of HRM innovations from the open interviews in a Venn diagram.



#	Sub-label
7	Gemba.
9	Lean.
12	Big Data.
18	Chain of care.
19	HRM business partner.
20	E-learning via internet.
21	Talent management.
22	Prevention officer.
23	Flat HRM organisation.
24	Cooperation.
25	Vacancy pool.
26	Coopetition.
27	Process nurse.
28	HRM workflow.
29	Database.
30	Corporate values derived from employees values.
31	Blended learning.
32	Delegation HRM administration to employee.
33	Digitization medical library.
34	Connecting MC of employment to company goals.
35	Preventive sustainable employability.
36	Crew resource management.
37	At any time a tailored meal.[16]

#	Sub-label
38	Contact regulations.
39	Collective calculation of training needs.
40	Internal employment agency.
41	Train-each-other program.
42	Magnet hospital.
43	Discretionary training.
44	Work half time and get paid 75% for 60+
45	Train employees how to cope with change.
46	Old boys network.
47	E-learning in leisure.
48	Work capacity monitor.
49	Career carousel.
50	Process optimisation with activity trackers.
51	Outsourcing non-core activities.
52	Participatory healthcare.[16]
53	Internal job alert by email.
54	Three-click rule HRM website.
55	Automated presence registration &
56	Continuous measurement of employee satisfaction.
57	Vitality week.
58	Harmonisation of job classification.
60	Outsourcing people related quadrants of the model
61	Networking.

Figure R1. Distribution and degree of overlap of HRM innovation types, extracted from open interviews. The numbers of HRM innovations per set are between brackets in the set name.

[16] This HRM innovation is regarded as questionable (see Appendix Q).

Appendix S: HRM Innovations in Literature, in DGHs, and their Intersection

This appendix shows the HRM innovations found by literature review as well as the HRM innovations found in DGHs by open interviews and their intersection.

Table S1

HRM Innovations Found in Literature in a Healthcare Setting, HRM Innovations Found in DGHs during Open Interviews and their Intersection

HRM innovations		
Found in literature in a healthcare setting	∩	Found in DGHs during open interviews
Employment innovations		
1: Job rotation to reduce stress and share best practices.		31: Blended learning. 49: Career carousel. 33: Digitization medical library. 43: Discretionary training. 47: E-learning in leisure. 20: E-learning via internet. 58: Harmonisation of job classification. 40: Internal employment agency. 53: Internal job alert by email. 21: Talent management. 41: Train-each-other program. 25: Vacancy pool. 59: Unified leadership training.
Work innovations		
2: Balance hoarding and discarding of task of professionals. 3: Contextual performance boosting. 4: Create clarity about team leadership in self-managed cross-functional teams. 5: Downsizing by HPWS. 6: Employee direct voice. 7: Gemba. 8: Hybrid clinical managers as main driver of HRM innovations. 9: Lean. 10: Limit paid hours to face-to-face contact time. 11: Serious gaming.		55: Automated presence registration & employee/customer identification. 39: Collective calculation of training needs. 56: Continuous measurement of employee satisfaction. 24: Cooperation. 26: Coopetition. 29: Database. 32: Delegation HRM administration to employee. 58: Harmonisation of job classification. 19: HRM business partner. 28: HRM workflow. 42: Magnet hospital. 61: Networking. 46: Old boys network. 51: Outsourcing non-core activities. 60: Outsourcing people related quadrants of the model of HR from Ulrich. 52: Participatory healthcare.[17] 22: Prevention officer. 35: Preventive sustainable employability. 27: Process nurse. 50: Process optimisation with activity trackers. 54: Three-click rule HRM website.

(continued)

[17] This HRM innovation is regarded as questionable (see Appendix Q).

HRM innovations		
Found in literature in a healthcare setting	∩	Found in DGHs during open interviews
		57: Vitality week.
		48: Work capacity monitor.
		44: Work half time and get paid 75% for 60+ employees.
Organizational innovations		
		12: Big Data.
13: Enhancement of patient satisfaction by improving employees' HRM system perception.		37: At any time a tailored meal.[18]
14: Innovative work behaviour by knowledge sharing.		18: Chain of care.
15: Organisational citizenship behaviour.		34: Connecting MC of employment to company goals.
16: Stimulation of pro-social organisational behaviour.		38: Contact regulations.
17: Tripartite HRM model.		30: Corporate values derived from employees values.
		36: Crew resource management.
		23: Flat HRM organisation.
		45: Train employees how to cope with change.

Note. ∩: intersection.

[18] This HRM innovation is regarded as questionable (see Appendix Q).