Summary

Worldwide, there is growing concern about whether we can sustain or even attain a desirable balance between the values in our health systems. In both high- and low-income countries, there are numerous dynamics that seem to jeopardize the short- and long-term sustainability of our health systems relating to accessibility, acceptability, affordability and quality. In high-income countries, these problems mainly concern the ever-rising costs of health care which have long outpaced economic growth. The increasing costs for care were acceptable when the return on investment – more health – was substantial. However, there appears to be a diminishing return on investment. Health systems in low- and middle-income countries face different problems as they generally fall short of providing universal, equitable, appropriate and high-quality services. These countries increasingly face a so-called double burden of disease where both communicable (infectious) and non-communicable (chronic) diseases are affecting the health of many who do not have access to adequate care services. This has gained increasing attention as ‘weak’ health systems have been labelled one of the main causes for not achieving the health-specific Millennium Development Goals. The characteristics of these weak health systems are lack of skilled personnel, poor facilities, inability to mobilize resources, and weak governance structures.

Conventional solutions to the problems facing health systems have not always led to the desired effects. Top-down reforms have been largely unable to curb costs while simultaneously maintaining or improving the quality of care in health systems, and have had unforeseen effects (often adverse). Bottom-up interventions have often failed to scale up and have therefore had limited system-wide effects. Several scholars, policymakers and health professionals have suggested that we have been looking at the wrong problems and finding the wrong solutions. These scholars argue that conventional approaches to health system change do not offer adequate governance and management heuristics. Or, as stated by Flier in 2009, “without a correct diagnosis there is no cure”.

In this PhD-research we turn to the field of system innovation and transition theory, with the intention to provide novel insights in how we may go about changing our health systems. This novel field offers interesting governance approaches that deal with system change towards more sustainable systems. ‘System innovation’ (or ‘transitions’) can be defined as long-term processes of fundamental change of societal (sub)systems. These processes are often initiated and ‘steered’ by change agents, individuals or organizations that have a strong sense of the necessity to approach societal needs from a different perspective. In this thesis we have an explicit focus on non-governmental organizations and governments, as change agents, in processes of system innovation.

Specifically, the aim of this study is to gain insight into the way change agents may facilitate health system innovation towards more sustainable health systems, in order to contribute to the improvement of approaches for progressing towards such systems.

Theoretical background

A health system is conceptualized as an open complex adaptive system, encompassing many different actors and organisations, with the goal to fulfil a societal need. It comprises a patchwork of dominant regimes that are characterized by their specific cultures, structures and practices. The composition of these constellations relates to their embedded Culture (thinking), Structure (organising) and Practice (doing): CSP. In contrast to optimization of dominant culture, structure and practice, (sub)system innovation implies a radical change of these features towards a new equilibrium: CSP0 to CSP. These processes tend to take a generation or longer. The dominant CSP in (sub)systems is termed the regime, and is geared towards optimization and is rather resistant to radical change. In niches, relatively detached from regime practices, new deviant practices can be developed that can contribute to regime shifts. The exogenous environment of the regime, termed the landscape, may also pressure the regime and/or reinforce niches, to induce regime shifts.
Change agents can be active at regime level or at niche level, inducing change. Most strategies to induce system innovation are as yet ill explored, but from literature we abstracted three generic strategies for system innovation.

(1) Vision development (and scenario building): change agents aiming at change towards sustainable health systems, or scaling up non-compatible innovations, are expected to have a value-driven vision on a new equilibrium. A vision serves as a beacon for action and iteration, and thus deals with the direction for change.

(2) Problem structuring: system innovation is needed when a system cannot solve needs on the basis of its current CSP. Problem structuring can help in rationalizing the policy process within infinite complexity, helping in forecasting activities.

3: The management from niche experimentation to scale up: ultimately, there are many activities but developing actual alternative practices is key. It encompasses visioning and problem structuring as well as the three steering mechanisms: deepening, broadening, and scaling up.

The strategies for system innovations all appear to share that change agents use transdisciplinary approaches throughout the process, to learn and to act. Another crucial element for change agents is alignment of activities. These aspects, in relation to system innovation theory, are largely unexplored in the health system. For example, it raises the questions of what is a vision on sustainable development in health systems. But, in system innovation theory, there are also aspects that need resolving, such as: the role of change agents in processes of system innovation.

Research design

Against the backdrop of the formulated objectives and the conceptual framework, the following main research question is formulated: What can we learn from change agents’ contributions in realizing system innovation in order to progress towards sustainable health systems? In order to answer the central research question, four study questions were formulated. Which are further specified in the separate chapters.

1. How may we operationalize the concept of sustainable development in the context of health system innovation towards more sustainable health systems?

2. How can we structurise persistent problems in the health system?

3. How does health system change come about? With a specific focus on; regime shifts (CSP₀ → CSP₁) and the scale up of non-compatible health interventions; pathways of change; phases of change

4. How do change agents contribute to processes of system innovation with respect to vision development, problem structuring, deepening, broadening and scaling up, the use of transdisciplinary research methods, alignment of niche and regime activities?

In order to provide answers to the main question and sub questions we conducted a multiple case study analysis. Our principal units of analysis are (1) the system innovation we describe, and (2) the contributions of change agents who’s activities we research. In total we selected six cases. Each case describes a study of the management of system innovation. One case focuses on sustainable development as a vision for system innovation, one case on the problem-structuring process, and four cases focus on niche experimentation with, and scale up of, novel cultures, structures and practices. It is expected that together these cases provide insights in our main research question. Data collection in all except one case followed the subsequent trajectory:

- Exploratory desk study and informal interviews to assess the relevance of the case for our research.
- A desk study of the scientific literature, followed by a desk study of available project documentation. Especially the latter was crucial in understanding what the system innovation was about and what the change agents did.
- Based on this knowledge, we collected data from respondents through interviews, group interviews and focus group discussions, or personal observation, to reflect on findings from the literature and documents. A number of cases were excluded after this phase.
- Then we analyzed the data and formulated initial conclusions and generalization through deduction.
• Thereafter, another set of data was collected to verify our initial findings. This was done through a second series of interviews with key stakeholders (who were first made aware of the initial findings), reflective focus groups (workshops) with key stakeholders, having key stakeholders review and add to our analysis, and a specific analysis of the project documentation.
• Then we drew our conclusions and lessons from this in relation to the literature.

CASE STUDIES

In section 2 of the book – which comprises chapters 4 to 9 – we elaborate on 6 cases studies in processes of system innovation.

In chapter 4, we further operationalized the concept of sustainable development in the context of the management of health system innovation. We did this through an analytical deduction of the concept and an empirical study into how sustainability was used as a vision to structure the health care reform in Canada. We argued that by lifting the formal structure and dynamics of the triple P bottom line concept from the original practice where it was formulated and developed, it might be possible to generalize the intrinsic function of sustainable development beyond the environmental context. We identified four central elements of a guiding vision for sustainable health systems: (1) identification and analysis of the persistent problems within the health system that lead to urgency for change; (2) formulation of a limited set of shared core values through a broad participatory process; (3) an explicit focus on balancing these values; and (4) anticipation beyond generations by addressing the need for healthcare in the present and the future. The Candian example shows that such a vision can lead to concrete steps in the present.

In chapter 5 we describe a problem structuring approach, that we call Policy Interactive Learning and Action (P-ILA), to unravel persistent (long-standing unstructured) problems in the Dutch pharmaceutical care system. P-ILA is a form of deliberative governance, using focus group discussions and interviews, which explicitly takes a system perspective. We conducted a case study into irrational drug use in the Dutch pharmaceutical care system. We distinguished six different sub-constellations and found that irrational drug use originates from strain within and between sub-constellations: e.g. diversity in cultures, driving values, structural power and authority conflicts. This results in the (re)production of irrational drug use; e.g. poor compliance, poor cooperation, and a general lack of shared responsibility to tackle the problem. We conclude that, as a tool in the management of system innovation, P-ILA and the constellation perspective stand out as a method that allows for problem structuring, communication and policy implementation in the context of infinite complexity.

Chapter 6 addresses the role of Civil Society Organizations (CSOs) in bottom-up innovations in the Dutch home-care sector. We studied 14 innovations initiated by CSOs in the long-term care sector. Data shows CSOs are active in a variety of technological and social innovations. They envision a system that is more needs-oriented, and some CSOs also aim to strengthen social cohesion and envision a community-based health system. The innovative process was one of learning on the societal problem they aimed to tackle and on acquiring proof-of-principle. However, although CSOs conduct bottom-up innovations, they remain rather passive in scaling up their innovations and largely expect that successful innovations will simply diffuse. There is a need for other organizations to contribute in the processes of scaling up to induce system innovation, as it does not correspond to CSOs’ role-perception.

In chapter 7 and 8 we have a focus on the role of an NGO contributing to health system innovation in Vietnam. These two case studies provide insight into the role of NGOs in scaling up complex, non-compatible, interventions. In chapter 7 we describe a retrospective qualitative case study into the scale-up of the Directly Observed Treatment Short-Course strategy in Vietnam (1975-2010), to reduce the impact of tuberculosis. In chapter 8, in a similar case study, we focus on community-based rehabilitation (CBR) to innovate the disability support system in Vietnam (1987-2012). Our analysis shows how the NGO scaled up a cluster of CBR interventions (structure) and the associated mind-set (culture) in regions of Vietnam and currently contributes to scaling up CBR country-wide. We conclude that, to contribute successfully to scaling up non-compatible innovations, NGOs need to establish long-term (>15 years) partnerships, have a strong (value-driven) vision on change, focus on constant cycles of learning, and frame reflection, as well as balance changing
capacities and structures to induce paradigm shifts. These cases show that transdisciplinary approaches and a system innovation framework may be constructive for the governance of experimentation and scale-up.

In chapter 9 we discuss Canada’s Executive Training for Research Application (EXTRA) program, which can in some ways be seen as a transition program avant la lettre. This program is a fellowship course to build capacity among leaders (physicians, nurse executives, managers) in the Canadian health system. The program contributes to the creation, application and contextualization of evidence that can be used by practitioners in their settings; in the EXTRA parlance, “a culture of Evidence-Informed Decision Making” (EIDM). The fellows have to attend training sessions for a period of 2 years and conduct their own intervention project (niche experiment). The program is fairly successful in training change agents to apply and generate evidence in their own settings and a committed group of change agents has been formed. We conclude that training competences for system innovation is an interesting addition to the toolbox of system innovation managers.

Conclusions

The thesis demonstrates the usefulness of applying system innovation and transition theory to the study of health systems change because of their combination of bottom-up and top-down activities and the explicit focus on long-term, sustainable (value-driven) and radical change (new cultures, structures and practices) to break the reproductive cycle of systems. In particular, the constellation perspective provides insights into the reproductive nature of systems. Moreover, it is helpful to elucidate how interventions, as newly formed constellations, scale up to ‘integrate’ in health systems.

Our research has provided insights into the role of change agents in these processes of system innovation. However, we can give no simple, unequivocal answer concerning how change agents can contribute to sustainable system innovation. We demonstrated the success, potential and pitfalls of value-driven, assertive change agents in processes that deal with re-structuring of systems; meaning changing the thinking and organising in systems. It is crucial that change agents adopt transdisciplinary approaches throughout phases of deepening to scaling up, and go back and forth between (shared) visioning and problem solving, experimentation and deliberation, learning and doing, innovation and standardization, competence and structures, to contribute to system innovation. However, not all change agents have the ambition to go back-and-forth between niche experimentation and regime re-structuration. This role is increasingly taken on by what we call facilitator change agents. These change agents have the specific ambition to contribute to sustainable health system innovation, and they have been successful in the cases that we described.