Creating organisational capacity for priority setting in health care
Using a bottom-up approach to implement a top-down policy decision

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## Abbreviations and acronyms

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<th>Full name</th>
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<tr>
<td>A4R</td>
<td>Accountability for reasonableness (Daniels and Sabin, 1998)</td>
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<td>CAS</td>
<td>Complex adaptive systems</td>
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<td>EBM</td>
<td>Evidence based medicine</td>
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<td>MMA</td>
<td>Macro Marginal Analysis</td>
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<td>NICE</td>
<td>National Institute for Health and Clinical Excellence</td>
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<td>NPM</td>
<td>New Public Management</td>
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<td>PBMA</td>
<td>Program Budgeting and Marginal Analysis</td>
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<td>The Board</td>
<td>National Board of Health and Welfare</td>
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<td>The Commission</td>
<td>Swedish Commission on Priority Setting in Health Care</td>
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<td>The Prioritisation Centre</td>
<td>National Knowledge Centre for Prioritisation in Health Care</td>
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<td>The Priorities Delegation</td>
<td>National Delegation on Priority Setting</td>
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<td>The (Prioritisation) Model</td>
<td>National Model for Transparent Vertical Priority Setting in Swedish Health Care</td>
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<td>SALAR</td>
<td>Swedish Association of Local Authorities and Regions; formerly The Union of County Councils</td>
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<td>SNAO</td>
<td>Swedish National Audit Office</td>
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<td>SQI</td>
<td>Structured quality improvement</td>
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<td>VCC</td>
<td>Västerbotten County Council</td>
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Abstract

In this thesis, priority setting to the form of the 1997 Swedish parliamentary decision on priority setting, is considered an innovation for implementation in health care. The features of this innovation are investigated. The practical implications of implementation are identified by investigating the user organisation, ie, Swedish health care organisations and management systems.

Also, a case of a three-stage process for macro-level priority setting that engaged the entire organisation in the Västerbotten County Council (VCC) is presented. This is done against a background of preceding implementation efforts in the VCC.

Four specific research efforts and papers are presented.

In Paper I, priority setting is operationalised into a multi-dimensional resource allocation task. On that basis, with the help of interviews (1998) and surveys (2002 and 2005) primarily of VCC health care managers, the impact of implementation is measured by prioritisation structures, processes and decisions. Survey response rates were low. Results were used as qualitative data, internally compared, and interpreted as: a) responses reflected mainly “early adopters” opinions; b) priority setting is an ambiguous concept; c) indicating limited overall implementation; d) reinterpretation of the prioritisation task occurred over time among respondents; and, e) this group took increasingly personal responsibility as stakeholders in priority setting.

Paper II reports a case study intervention of explicit, departmental level priority setting with the aim of improving cost-effectiveness in in vitro fertilization resource use and a rationing of services perceived legitimate by all stakeholders. The intervention combined priority setting and structured quality improvement techniques. Results were: a) improved operational efficiency of diagnostic procedures that allowed resources to be reallocated to treatment; and b) patients were prioritized and treatment resources were rationed based on evidence of treatment effect among subgroups. Evaluation showed that the procedure met stated criteria for legitimacy.

In Paper III, a full-format test of the macro level prioritisation process is described and evaluated by participants with the help of surveys after each completed stage. Participants report the need for improvement of elements in the overall process and of procedural specifics. However, overall there was a strong commitment to the initiative and satisfaction with the process and the resulting decisions.

In Paper IV, procedural specifics of the prioritisation process are evaluated. They are also compared to the Program Budgeting and Marginal Analysis (PBMA) framework when used for macro level purposes. Procedures provided intended results such as vertical and horizontal priority setting and a consistent process. However, economic targets were not fully achieved in any of the stages.

Conclusions include that health care management systems are not prepared for priority setting and need profound restructuring and that the prioritisation
process described in Papers III and IV was successful because: a) the process satisfied politicians’ directives; b) participants were satisfied with the procedures and perceived the subsequent reallocation decisions as legitimate; and, c) methods resulted in the intended outcome.

Factors suggested as the basis of success include: long-term overall preparations; broad and deep participation; a readiness for change among participants; a stage for horizontal priority setting that added to the quality, feasibility and perceived validity of the knowledge base; a strong process leadership; and politicians determined to protect the process from opportunistic disturbances.

**Keywords:** Health care; priority setting; implementation; management systems
Part I. Introduction

1. Aims of the thesis

The overall aim of this thesis is to contribute to an understanding of the complex task of implementing the 1997 Swedish parliamentary decision\(^1\) on priority setting in health care.

I will analyse the inherent priority setting mission, understood as a new political/administrative technology to be implemented in health care (the innovation). I will present and discuss interpretations and supportive measures taken by national stakeholders. On this basis, I will analyze the existing health care organisations and management systems (the user organisation) and the potential impact of implementation on these systems.

I will portray efforts to implement the parliamentary decision in Västerbotten County Council (VCC). The description includes a process for priority setting that engaged the entire organisation. My combined roles as a facilitator for implementation that included responsibility for the priority setting process, and that of a researcher will be presented. Four specific research efforts and papers related to the implementation case with the following separate contents and aims are:

1. To present and discuss an intervention that measures the impact of early efforts to implement the parliamentary priority setting decision\(^2\) in the study organisation. More precisely, to assess the development of knowledge, structures, processes and results of prioritisation on the unit level from 1998 through early 2005 (Paper I).\(^3\)

2. To present and discuss a local priority setting action research effort. In vitro fertilisation serves as a case, and prioritisation theories and methods are used to form an evidence-based proposal that meets the standards of the Accountability for Reasonableness (A4R) framework of Daniels and Sabin.\(^4\) The proposal was intended to serve as a basis for a public decision on rationalisation, prioritisation and rationing, where given resources are allocated in an ethically defensible and cost-effective way (Paper II).\(^5\)

3. To present features and a test of a priority setting process that engaged an entire health care organisation and stakeholders such as politicians, managers and health care professionals. The overall aim of the process was to fund

\(^{1}\) Swedish Government’s Proposition 1996/97:60.

\(^{2}\) Ibid.

\(^{3}\) Waldau (2007).


\(^{5}\) Lindström and Waldau (2008).
high-priority health technologies by disinvesting in low-priority technologies. The process included vertical and horizontal priority setting performed by professionals, and eventually a political decision was made on vertical and horizontal resource reallocation. The participants’ perceptions of the feasibility and legitimacy of the process and decision are presented and discussed. (Paper III)\(^6\)

4. To evaluate whether the specific procedures for the disinvestment process described in Paper III provided the intended results. Specifically the evaluation included whether a) departmental priority setting was performed, b) intra-departmental priority setting occurred, and c) the disinvestment process was internally consistent. Another aim was to compare the procedures to the Programme Budget Marginal Analysis\(^7\), a methodology that is used for similar purposes elsewhere. (Paper IV).\(^8\)

Results of the overall analysis of the implementation and the specific research efforts are discussed. Conclusions are drawn on this basis.

2. The overarching research problem

Although based on values held by the general public and especially by health care professionals\(^9\), the impact of the Swedish Parliamentary decision (1997) on priority setting in health care was small until recently.\(^10\) In 2003, political, macro level priority setting based on professional, vertical priority setting was performed in Östergötland County Council.\(^11\) Between 2003 and 2007, county council priority setting halted. Since 2008, five major health care organisations\(^12\) have engaged in comprehensive priority setting, based on or inspired by procedures developed and performed in Västerbotten County Council.

 Evaluators thought that implementation delayed and suggested that responsible factors were the characteristics of the decision and the decision process itself (ie, only presenting a values framework\(^13\)), lack of goal operationalisation

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\(^6\) Waldau, Lindholm and Wiechel (2010).
\(^7\) Mitton, Patten, Waldner and Donaldson (2003).
\(^9\) The Commission on Priorities in Health Care performed surveys on ethical values among health care stakeholder groups, politicians and the public. (Ministry of Health and Social Affairs, 1995).
\(^12\) Four county councils and Sahlgrenska University Hospital in the Region of Västra Götaland.
\(^13\) Sabik and Lie (2008).
and specification of directives or recommendations\textsuperscript{14}, and that the inherent ethical template was not specific or exclusive enough for setting limits in health care.\textsuperscript{15} The political inconsistency of prioritizing access to health care for relatively healthy people with minor complaints rather than priority setting based on needs was also mentioned.\textsuperscript{16}

All of the above explanatory factors may be relevant. My focus, however, is how to interpret and operationalise the concept of priority setting into a task given by parliament, and how to create adequate institutional capacity for explicit priority setting in a traditional (by Swedish standards) health care management system.\textsuperscript{17} To do so requires searching for answers to the following questions:

- What is meant by explicit priority setting?
- What outcome did the parliament want from its policy decision?
- What would be the main differences from present decision-making practices and resource allocation, and why would differences occur?
- What are the institutional and organisational requirements for implementation?

Some evaluations mention a lack of adequate institutional prerequisites for explicit priority setting in all health care domains.\textsuperscript{18, 19} Klein and Williams (2001) have discussed whether requirements for a better knowledge base are more important than strengthening the institutions. In that instance, the concept of institutions refers to national bodies with regulating or recommendation assignments, but not to health care organisations. To my knowledge, the management perspective has not been highlighted in the priority setting discourse in Sweden or elsewhere.\textsuperscript{20} Also, Gibson, Martin and Singer (2005) note that “comparatively little attention has been paid to examining the institutional conditions within which priority setting decisions are made.” Kamper Jörgensen (2004) considered priority setting to be a new technology to be implemented in health care. I have not found any literature that applies an implementation approach to priority setting.

\textsuperscript{14} Swedish National Audit Office (2004).
\textsuperscript{15} National Centre for Priority Setting In Health Care (2008).
\textsuperscript{16} Swedish National Audit Office (2004).
\textsuperscript{17} Ie, a management system constructed for the planning or “consensus” era. See Walt and Gilson (1994) and arguments in section 5.1.
\textsuperscript{18} National Board of Health and Welfare (1999).
\textsuperscript{19} Ministry of Health (2001a).
\textsuperscript{20} Lately, the introduction of knowledge management to health care systems and the institutional demands following on such ambitions have become a central feature of health care discourse. However, the focus has been on clinical quality improvement rather than on priority setting. The theme will be further elaborated in section 6.4.2 below.
2.1 Explicit priority setting – an innovation for implementation

Kamper Jörgensen (2004) not only labelled explicit priority setting a “political-administrative technology” new to health care\(^{21}\), but also used Rogers (1995)\(^{22}\) to illustrate implementation in Swedish health care. For such an approach, policy and technology implementation research apply. Thus, conceptual bridges are created between the knowledge fields of implementation and priority setting. This constitutes the theoretical foundation for the thesis.

Greenhalgh and co-workers (2004) review experiences of implementation efforts in health care. They define the innovation concept as “a novel set of behaviours, routines, and ways of working”.\(^{23}\) Due to this wide definition I consider their results to be generalisable and useful for my purposes. The review includes a “Conceptual model for considering the determinants of diffusion, dissemination, and implementation of innovations in health service delivery and organization, based on a systematic review of empirical research studies” (the conceptual model). According to the authors, characteristics of the innovation and its compatibility with the adopting system, the user organisation, should be the focus when considering implementation.

The overall outline of the thesis follows such a line of analysis. Part I (chapters 1 and 2) is introductory and gives the overall aim of the thesis as well as those of the four included papers. The overall research problem and my stance as a researcher are presented with the Swedish health care setting. Eventually, the prioritisation discourse is briefly introduced.

In Part II, the innovation—the parliamentary decision on priority setting—is described and interpreted by the help of central documents. Also, national stakeholders’ interpretations and measures that are thought to support implementation at the local level are described and analyzed. Part II consists of chapters 3 and 4.

In Part III and with the help of literature, the user organisation is described with general features of health care organisations and management systems. Conclusions are drawn regarding the impact of implementation on health care management systems. Part III consists of chapters 5 and 6.

In Part IV, the case of Västerbotten County Council is described. With the help of local documents, the specific implementation efforts of the user organisation of the Västerbotten County Council (VCC) are described. Within this background, a priority setting process is described that engaged the entire organisation and was a means to reallocate funds and improve cost-effectiveness (chapters 7 and 8). Research efforts and results connected to the case of VCC are also presented (chapter 9).

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\(^{23}\) Greenhalgh and others (2004), p 582.
In part V, findings from the overall investigation as well as from investigations related to the case are discussed and conclusions are drawn (chapters 10 and 11).

2.2 Overarching research approach

My interest for priority setting began in 1993, with the task of commenting on the first version of The Commission Report on Priority Setting in Health Care. This started my efforts to facilitate implementation in the Västerbotten County Council. Throughout this effort, to solve practical or conceptual problems or for my writings in the field, I have combined practice with theoretical and empirical research. My overarching approach in research and in my role as a facilitator is that of an action researcher. According to Argyris, Putnam and McLain Smith (1985), such research (in short):

1. ... involves change experiments on real problems in social systems... and seeks to provide assistance to the client system.

2. ... involves iterative cycles of identifying a problem, planning, acting and evaluating.

3. The intended change typically involves re-education... changing patterns of thinking and acting ... typically at the level of norms and values expressed in action. Effective re-education depends on participation by clients in diagnosis and fact finding and on free choice to engage in new kinds of action.

4. ... challenges the status quo from a perspective of democratic values.

5. ... is intended to contribute simultaneously to basic knowledge in social science and to social action in everyday life.²⁴

When presenting the case in Part IV, I will discuss the pros and cons connected with this research approach. When presenting the included papers (in chapter 9) I will also provide accounts of the specific research methods chosen for each.

As stated, the cover story partly consists of an investigation in its own right, with the aim to examine the task of priority setting (the innovation) in health care organisations (the user organisation) in order to identify facilitators and obstacles to implementation. The objective is also to put the case in both a Swedish and an international context. For that investigation, priority setting literature, careful reading of documents central to the parliamentary decision on priority setting, and literature on health care organisations and management are used. A deductive analysis that renders specific conclusions about management requirements for priority setting is performed and findings are related to relevant national and international health care management discourse.

This is a social science investigation of an organisation dominated by the science of medicine, in which the randomized, controlled test constitutes the gold standard. A social scientist easily feels lost and deviant in such an environment. West Churchman (1971) offers help by using the knowledge theories of five philosophers – Leibniz, Locke, Kant, Hegel and Singer – to visualise and describe different epistemological approaches or inquiring systems. In applying the framework to organisations, Courtney, Croasdale and Paradise (1998) note that each approach “provides for a different way of gathering evidence and building models to represent a view of the world”. According to these authors, the Leibnizian inquiring system is “a closed system with a set of built-in elementary axioms that are used along with formal logic to generate more general fact nets or tautologies. The fact nets are created by identifying hypotheses, each new hypothesis being tested to ensure that it could be derived from, and is consistent with, the basic axioms. Once so verified, the hypothesis becomes a new fact within the system. The guarantor of the system is the internal consistency and comprehensiveness of the generated facts.” This description could illustrate the ongoing production of medical evidence. However, it is not applicable to my overall research problem.

The picture of the Kantian inquirer is more suited for my purposes. Such an inquirer or inquiring system “contains both theoretical and empirical components” and appears deductive rather than inductive: “It generates hypothesis on the basis of inputs received.” Also, it “allows an input to be subjected to different interpretations.” Kienholz (1999) explains the Kantian inquiring system as a “multiple realities inquiring system”, allowing for alternative world views and aiming at building models of the world. What data should be included in a model depends on the problem and choice of theory. “[M]ultiple realities do not assume that there is only one way to define a problem. Thus, for any significant problem, models must be drawn from a range of disciplines...Objectivity is... determined by whether or not something results from a range of differing viewpoints.”

I do not strive for objectivity, because I do not consider it to exist. Instead, I strive for comprehensiveness and diversity as a basis for understanding the world. The description above gives arguments that defend an eclectic approach in research situations similar to mine. Also, to understand an innovation and the user organisation is equal to creating “models of the world”, rather than to building fact nets. Because of the complex nature of priority setting and that of health care, any representation will be imperfect. This is also true because the organisation is dynamic and thus a moving target. Also, complexity science emphasises the relations between parts rather than their specific characteristics. Thus, eclecticism gives a broad understanding of factors and relations crucial to the innovation and the user organisation in this particular case.

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27 Ibid.
McDaniel (1997) captures important aspects of my stance as a researcher by saying: “[I] cannot expect to know the world through learning but, rather, [I] can expect to make sense of the world through an ongoing learning and interpretation process.”28 However, I do not stop at making sense—I use the knowledge as a basis for action.

2.3 The Swedish health care system
In order to understand the general context, a short presentation of the Swedish health care system is necessary. In Sweden, the parliament is responsible for health care law that constitutes a framework for regional or local political health care goals, indicators and performance levels. County councils and regions are democratic bodies with their own power of taxation and are responsible for finance and delivery of health care that ranges from primary care to specialised hospital care.29 These bodies (19 county councils and 2 regions30) decide on overall allocation of health care resources, how to organise the health care system, and on performance levels. Likewise, municipalities (Sweden has 29031) are political bodies and responsible for long-term care for the elderly.32 A special government system levels out differences in economic strength between county councils and regions. Through special agreements and economic incentives, the government influences county councils, regions and municipalities to develop in nationally preferred directions.33

The National Board of Health and Welfare (the Board) is responsible for supervision of medical quality and outcomes, and offers strategic support regarding these matters. The Board has the right to interfere on organisational matters only when it is clearly important for medical results. Since 2003, the Board has engaged in priority setting activities within the framework of national guidelines for care.

2.4 An introduction to the priority setting discourse
The priority setting discourse evolves around a core set of themes. For an understanding of the reasoning that follows, a brief description of the main subjects is given.

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29  County councils/regions are responsible for provision of health care services irrespective of whether they are publicly or privately produced.
30  Populations range from 128 000 (Jämtland) to 1.9 million (Stockholm).
31  Populations range from 2 500 (Bjurholm) to 810 000 (Stockholm).
32  County councils are responsible for around 80%, and municipalities for 20% of the public health care finances. Municipalities' main responsibilities areas are schools and social services including care for children and the elderly.
33  For an extensive presentation of economic and structural conditions in Swedish healthcare during the period 1990-2005, see Anell (2005).
The research domains that contribute to the field are generally considered to be “philosophy, law, political science, medicine and economics”. That is to say, priority setting is about ethics, justice, politics, clinical matters and resource allocation. I would argue that it is also about management and health care organisational culture defined as “the set of common norms, values and beliefs about reality that develop in an organisation when its members interact internally or externally.” Organisational culture provides a framework for common action.

One theme concerns the very meaning of the concept of priority setting. The Swedish Academy Glossary (2007) limits the concept of priority setting to the act of putting something first or forward, and does not mention anything about consequences like rationing or limiting. Some authors equate it to resource allocation. Others add “under resource constraint” or “between competing needs”. Still others equate it to rationing or to setting limits on (the public subsidization of) health care. Hauck, Smith and Goddard (2004) summarize priority setting as “a more or less systematic approach to distributing the available resources among demands to fashion the best health care system possible, given the constraints.”

Resource allocation can be vertical (within a group of patients with the same kind of disease but with different levels of need) or horizontal (between groups of patients with different diseases or kinds of needs). In both cases, the concept of (health care) need is central and has to be operationalised and measured.

Distributive justice is a core value of priority setting. Distributive justice (or injustice) may be either vertical or horizontal and is an effect of the resource allocation decisions above.

Resource allocation decisions often include tradeoffs between equity and effectiveness, with the latter often made in terms of health maximisation. These are other core values in priority setting and each is ambiguous. Equity refers to

34 Martin and Singer (2001).
36 The same goes for Webster’s Dictionary, which equals “priority” to “the state of being first in rank, time or place, first claim”.
37 Sibbald and others (2009) and Martin and Singer (2003) speak about “resource allocation or rationing”. The two concepts are however not interchangeable. Allocation is a concept neutral to the level of resources available; rationing presupposes scarcity and could be defined as “the controlled distribution of scarce resources, goods, or services. Rationing controls the size of the ration.” (Wikipedia, June, 2010).
38 Kapiriri, Norheim and Martin (2007).
41 For more on “need”, see Williams (1988) and Hauck, Smith and Goddard (2004).
42 Gibson, Martin and Singer (2005).
distributive justice of either health or health care resources. Health utility refers to the outcome of health care interventions. One typical tradeoff is between spending considerable amounts of resources on the few very sick or using the same amount for moderate effects among the many. The total health gain in terms of life years or quality-adjusted life years (QALYs) would then be equivalent. According to Williams (2005), another frequent trade off is between “improving the health of the whole population or to reduce inequalities within it”.

The handling of ethical dilemmas or conflicting values in priority setting is summarized by Martin and Singer (2001) as (in a short and slightly revised version):

- The fair chances/best outcomes problem: Should resources be distributed proportional to the differences in outcome or to those with the best outcomes?
- How much should be spent on saving lives, ie, on people with a slim chances of survival?
- At what point do modest benefits for a larger number of people outweigh the more significant benefits for fewer people?
- When should “fair democratic processes be regarded as the only way to determine what constitutes a fair rationing outcome” and how should such processes be constituted?
- Under what conditions do controversial rationing decisions become legitimate even to those who disagree?
- Given the absence of or limited amount of clinical evidence – how should the quality of evidence be balanced against other principles in the decision-making process?  

Factual decisions in the dilemmas depicted above might vary depending on whether egalitarian or libertarian values are dominating among decision-makers. Williams (1988) summarizes these values as follows: “In the libertarian view, access to health care is part of the society’s reward system, and, at the margin at least, people should be able to use their income and wealth to get more or better health care than their fellow citizens should they so wish. In the egalitarian view, access to health care is every citizen’s right..., and this ought not to be influenced by income or wealth. Each of these broad viewpoints is typically associated with a distinctive configuration of views on personal responsibility, social concern, freedom and equality....”

Rawls (1971) proposed the maximin principle and takes the position of the ones in the worst situation. He says that “Social and economic inequalities are

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44 See Loomes and McKenzie (1989).
46 Maximin: “Give most to those who have least.”
to meet two conditions: they must be a) to the greatest expected benefit of the least advantaged members of society (the maximin equity criterion) and b) attached to offices and positions open to all under conditions of fair equality of opportunity.”  

Olsen (1997) defines Rawls’ theory on justice as based on egalitarian values, though still to “accept inequality as long as it is not possible to improve the situation for the worst off”.

Priority setting can be explicit or implicit. Openness or publicity is a core value for most authors in the field. Implicit priority setting has always been going on and some authors (among them Hunter, 1995) reason that leaving it as it is would be preferable to the politicians because of negative reactions from the public.

Priority setting decision-making occurs at all health care levels. Klein (1993) defines three levels: macro, meso and micro. Macro level priority setting concerns “the level of funding to be allocated to health services”. Meso level priority setting involves “the distribution of the budget between geographical areas and services” and perhaps “the choice of which patients should receive access to treatment”. “Decisions on how much to spend on individual patients” would be labelled micro level priority setting. The three levels are interpreted by Kapiriri and colleagues (2007) as national/provincial, regional/institutional, and clinical programs respectively.

Each decision-making level is generally understood to be related to certain groups of stakeholders or decision-makers: micro level is primarily a clinical matter; meso level is a managerial matter and macro level decision-making is political.

Micro level decision-making is primarily vertical, ie, among patients with the same kind of illness but with different levels of needs. Meso and macro level decision-making would be mostly horizontal and between groups of patients with different kinds of needs.

The main stakeholders in the priority setting process are politicians, managers, health care professionals, patients groups, and the public. While politicians, managers and health care professionals are understood to be clearly connected to the decision-making system, patients and the public are usually excluded. Central research themes are how to involve patients and the public in the priority setting decision-making process and also differences in values between stakeholders.  

Accountability for reasonableness (A4R) is a conceptual framework to be used when arranging or evaluating priority setting procedures. The framework is

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49 See also the Swedish Prioritisation Centre’s Reports series. Available at http://www.imh.liu.se/halso- och-sjukvardsanalys?l=sv
intended to compensate for a lack of clinical evidence and of consensus regarding values that characterizes priority setting decision-making. In such a situation, the authors argue that if decision-making procedures are considered legitimate by “fair-minded people”, the resulting decision would also be. For a procedure to meet the A4R standards, the decision and the arguments should be made public, arguments and the knowledge base used should be deemed relevant by “fair-minded people”, decisions should be revisable (the appeals condition), and there should be institutional enforcement to guarantee that procedures meet the other three conditions.

Founded on experiences of power differences that influence priority setting performed with the A4R framework, Gibson, Martin and Singer (2005) propose a fifth condition of empowerment. Such a condition “… states that there should be efforts to minimise power differences in the decision-making context and to optimise effective opportunities for participation in priority setting.” To my knowledge, such a condition has not been added to the general A4R framework. Nevertheless, as will be described in sections 5.3.3 and 5.3.4, there are reasons to recognize and deal with unequal distribution of power among stakeholders and agents in health care when organizing and performing priority setting processes.
Part II. The innovation

3. The parlimental decision on priority setting in health care

In this chapter, I will present the innovation (the technology of priority setting) as formulated by the Commission and in the proposition that resulted in the parlimental decision.51

3.1 The Commission Report

The parlimental 1997 decision52 on priority setting in health care was preceded by an investigation of medical ethics and priority setting (the Commission Report).53 The primary motives for the investigation were a growing discrepancy between medical possibilities and societal resources for health care that lead to a risk of new expensive, high-tech, life-saving treatments would supplant long-term and palliative care services for chronically or terminally ill patients, and the introduction in health care of New Public Management (NPM) in health care.54 NPM included competition and economic incentives, hitherto unknown in the Swedish health care system. They caused scepticism among professionals because of fear of adverse effects such as socio-economic skimming or a focus on producing high volumes of care rather than allocating resources based on severity of illness.55, 56

“There are two kinds of priority setting”, the Commission wrote. “One based mainly on patients’ needs and not primarily costs, and another enforced by resource strain. It is the demand for prioritisation due to lack of resources that causes debate, actualises difficult ethical problems and constitutes the main subject for this investigation.”57 Because the Commission was clear on this distinction, it seems reasonable to interpret the statement as expressing a distinction between clinical (vertical) decision-making about treatment in relation to condition and with the use of clinical evidence, and political decision-making regarding horizontal resource allocation.58 The statement also implies that there is one ethical rationale that guides vertical priority setting and is based on needs assessment by the medical profession and therefore uncomplicated, and another

51 Because all of Parliament decided on the proposition, except for certain details, I will refer to the proposition as “the Parliament”.
55 The economic theory of NPM was introduced worldwide.
56 The introduction of NPM in Swedish (and Danish) health care was critically assessed and discussed by Gustafsson (1994), Blomgren (1999) and Zeuthen Bentsen (1999).
58 The quote might also be interpreted as a distinction between positive priority setting, ie, deciding who will be prioritized; and negative priority setting, ie, how health care limits should be drawn.
for horizontal resource allocation or political use and based on economic and ideological arguments which is more controversial.59

The Commission proposed an ethical template as a basis for priority setting that consists of the principles of human dignity, needs and solidarity, and cost-effectiveness. The principle of human dignity declares that all human beings are of equal value and have equal rights. The principle of needs and solidarity was operationalised by the Commission into a responsibility to allocate resources according to need, and to recognize the needs among those who lack autonomy. It is also interpreted as a responsibility for those in less need to stand aside for those in more need. The principle of cost-effectiveness was only intended for use in vertical priority setting; that is, when comparing treatment alternatives for the same condition or vice versa, comparing effectiveness at different treatment criteria.60

The principles were put in hierarchical order. Despite the ambiguous message described above, the principles were to be common to all decision-makers.

Five major priority groups (based on conditions, patients and treatments, and hierarchically ordered) were proposed as a basis for decision-making when applying the template to health care. Box 1 displays the composition of groups.

<table>
<thead>
<tr>
<th>Priority groups (for clinical use)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia  Emergency care for life-threatening conditions. Care for conditions that if not treated would lead to lasting impairment or premature death.</td>
</tr>
<tr>
<td>Ib  Care for severe chronic diseases. Palliative care at the end of life. Care for people with reduced autonomy.</td>
</tr>
<tr>
<td>II  Individually targeted prevention during health care contacts. Habilitation and rehabilitation according to Swedish health care law.</td>
</tr>
<tr>
<td>III Care for less severe acute and chronic conditions.</td>
</tr>
<tr>
<td>IV  Borderline cases.</td>
</tr>
<tr>
<td>V   Care for reasons other than illness or injury.</td>
</tr>
</tbody>
</table>


Groups intended for political/administrative use were slightly different from those shown in Box 1. Groups Ia and Ib were merged into one group, and prevention was defined as “evidence based prevention” for populations.

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59 The theme of conflicting ethics among economists and physicians is elaborated by Jespersen in Zeuthen Bentsen (1999).

60 The Commission was unwilling to express the principle of cost-effectiveness in health care law (Ministry of Health and Social Affairs (1995), p 192). Over time, a consensus has developed that the principle of cost-effectiveness should be extended for use in horizontal priority setting.
The Commission pointed out, that “Our ... conclusion is, that today there is an imbalance, so that group Ib is underfunded compared to groups II and III.”\textsuperscript{61}

In summary, the Commission recognized the need for improving cost-effectiveness with the help of vertical, or clinical, priority setting. Its main message to decision-makers, primarily at the meso and macro levels, was to secure resources for patients, conditions and treatments as shown in priority group Ib. Setting limits to health care services was regarded necessary to achieve this goal.

**3.2 The parliamentary decision**

The parliamentary decision 1997\textsuperscript{62} had the following primary content:

1. A decision on the ethical template as a basis for prioritisation.
2. A minor revision of the proposed priority groups, so that no distinction was made between political and clinical priority setting. Groups Ia and Ib were merged into one. Priority groups IV and V were merged into a group IV labelled “Care for other reasons than illness or injury”.
3. Additions reflecting the ethical template were made to the health care law.
4. A requirement for timely health care needs assessment for all patients was added to the health care law.\textsuperscript{63}
5. An initiative for a parliamentary delegation (the Priorities Delegation) was presented to support and follow the implementation in health care.
6. The National Board of Health and Welfare (the Board) was commissioned to develop guidelines.

The reasons for merging groups Ia and Ib were formulated in the proposition: “Life threatening conditions break all ranks and must of course be treated immediately. This, we mean, is so obvious that it needs not be specially indicated in the priority grouping.” And: “We mean...that it is important to highlight care for chronic diseases.” And, further: “We want to point out the importance of palliative [terminal] care being judged as demanding of high competence as [curative] treatment.”\textsuperscript{64}

In response to the Commission report the parliament argued that political and clinical decision-making should be governed by the same ethical principles. The Commission report did not agree that the different roles among stakeholders encouraged separate priority groups, but rather thought the differences inspired an opposite effect.\textsuperscript{65}

\textsuperscript{62} Swedish Government (1997).
\textsuperscript{63} Such assessments were considered a prerequisite for priority setting.
\textsuperscript{65} Swedish Government (1997, p 31-32}
During the parliamentary debate, politicians expressed great concern for “hidden
diseases” such as severe chronic diseases, psychiatric diseases and others mir-
rored in priority group Ib.66

3.3 The decision in relation to prioritisation discourse
The Parliament and Commission had a strong focus on the political responsibil-
ity of securing resources for priority group Ib. In relation to the summary of the
prioritisation discourse (section 2.4 above) both emphasized the egalitarian
value base of priority setting and the political responsibility for horizontal dis-
tributive justice.67 The Commission, more than the parliament, also emphasized
clinical responsibility for vertical distributive justice.

4. Operationalisation at the national level

4.1 The priority setting task as understood by the National
Board of Health and Welfare
Instead of “developing the guidelines”, as required by parliament, the National
Board of Health and Welfare (the Board) composed a report with an aim to “en-
lighten, discuss and judge the working methods used by county councils for
priority setting... [and] examine the need for methodological development” as a
basis for future supportive actions.68

In this context, the Board interpreted priority setting with impact on future
implementation. With the help of international experiences, the Board described
the goal and aims of priority setting as providing a response to “the intense
medical development and growing expectations on health care services, which
constitute a challenge to the publicly financed health care systems.” Also, the
Board considered the international interest for and development of national
principles and guidelines for priority setting “an expression of growing demands
for regular rationing.” The Board summarized international experiences as: “It
is hard to gain political support for excluding health care services from public
subsidy...The main strategy nowadays is to develop methods and incentives se-
curing that publicly financed resources are efficiently used and for the ‘right’
patients. This in turn requires prioritisation criteria enabling definitions of which
patients with a certain condition who will gain most from the treatment in rela-
tion to competing resource demands.”69

The Board interpreted practical priority setting as “a process in which health
care stakeholders on political, administrative or clinical levels make decisions on

66 Swedish Parliamentary Committee on Social Affairs (1997).
67 Recently, Professor G. Hermén, member of the Commission, described the aim of it to: “create debate
around priority setting and put forward ethics and the value base." (Hermén, 2009).
69 Ibid, p 5.
ranking (prioritisation) between health care services and/or patients. Basically it is about allocating limited health care resources between competing needs.”  

The Board expressed regret that the parliamentary decision was limited to “general guidelines” and did not offer guidance about criteria for limits to health care or for allowing local variations in setting such limits. The Board claimed that this situation was an effect of “strong resistance” against an ambition among Commission members to define the limits for public health care.  

Further, the Board underlined the need for openness as well as managerial demands connected to priority setting. “Explicit priority setting presupposes that health care resource use is managed in a conscious way, emanating from distinguishable ethical principles and guidelines. Thereby conditions are created for public transparency and debate on the rules guiding priority setting, and opportunities for follow-up on whether factual decisions are in line with those rules.”  

With the help of international experiences, the Board thus interpreted the concept, the activity, and the expected outcome of priority setting independently of what the parliament had outlined. The Board would obviously have preferred a national level, top-down decision that clarified limits to health care.  

However, the Commission and parliament sent out a message indicating expectations for a desired outcome of priority setting in terms of improvements for underprivileged or underfunded groups. The Board spoke little, if at all, about such groups. Instead, its focus was on setting limits to health care, introducing managerial methods and improving value in terms of health utility for money. The Board thus emphasized the clinical, rather than the political, responsibility for and aspects of priority setting. This is in concordance with the Board’s assignment, but narrowed the task of priority setting to one of securing vertical justice.  

### 4.2 Measuring implementation

The Board went on to analyze the level of implementation among health care providers. This was made against the background of its own interpretation rather than against the parliamentary declared mission. Thus, it did not investigate whether groups that lack autonomy, in terminal care, or with severe chronic conditions received more political attention and better funding as a result of the parliamentary decision. Instead, the Board scrutinized the management systems of the investigated health care systems and noted the following deficiencies:

- A lack of consistent strategies;
- Politicians and administrators had not created the necessary preconditions for implementation;

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72 Ibid, p 10.
73 Ibid, p 7.
– The ability to produce data was generally higher than the ability to use data for management;
– Health care professionals were not engaged to create a knowledge base for decision-making;
– Common priority setting between county councils and municipalities were rare.

The Priorities Delegation (1998-2001) included representatives from all political parties on the national level and experts on medicine and ethics. Its task was to inform on and support development of knowledge about priority setting among all stakeholders and in municipalities as well as county councils.

In 2001, the National Centre for Priority Setting in Health Care (the Prioritisation Centre) was formed to support implementation by national and local stakeholders.\(^\text{74}\)

In the same year, the parliament decided on a National Action Plan. The intention was to prioritise primary care and care for underprivileged groups (eg, the elderly with multiple diseases, people with long-term psychiatric diseases and children with special needs), ie, the groups mentioned in priority group Ib of Box 1. A 2005 evaluation by the Board\(^\text{75}\) showed little impact of the National Action Plan on county council prioritisation.

If a lack of knowledge about and no use of the ethical template are added to the Board’s list of management deficiencies above, you have the assessments of implementation success presented by the Priorities Delegation in 2001\(^\text{76}\) and by the Prioritisation Centre in 2008. “We can report that the methods used by local governments (county councils and municipalities) to set priorities do not differ substantially from those used when the Priorities Delegation presented a similar study in 2001”, the Centre wrote.\(^\text{77}\)

Until 2008, organisations responsible for health care resource allocation had not adjusted to priority setting whether it was interpreted as prioritisation of underprivileged groups, introduction of adequate managerial methods for “conscious” resource allocation decision-making, or setting limits to health care.

### 4.3 Development of priority setting methodology

As noted, the Board was appointed partly responsible for implementation of priority setting and preceded this task by focusing on vertical priority setting. To support such work, the Board, in collaboration with the Prioritisation Centre and health care professionals’ organisations, developed a model for vertical priority

\(^{74}\) The Prioritisation Centre arranges conferences and seminars, administrates a network open for all stakeholders and has produced or published a series of reports covering theory, methods and empiric research regarding priority setting. More information and reports are available at: http://www.imh.liu.se/halso-och-sjukvardsanaly?l=sv

\(^{75}\) The National Board of Health and Welfare (2005).

\(^{76}\) The Ministry of Health and Social Affairs (2001a).

\(^{77}\) The National Centre for Priority Setting in Health Care (2008), Summary, p I.
setting analysis (“The Prioritisation Model” or “Model” in the following).78 The Model was preceded by methodological development and vertical priority setting activities performed by the Swedish Society of Medicine79 and certain county councils or regions.80

The Prioritisation Model builds on the ethical template and serves as an analysis of illness condition/intervention, expected health effects, cost-effectiveness and strength of the evidence (Figure 1), with an ultimate outcome to the form of a ranking list.81

<table>
<thead>
<tr>
<th>Health condition /intervention</th>
<th>Severity level of health condition</th>
<th>Patient benefit/effects of intervention</th>
<th>Evidence of effect</th>
<th>Cost per life years gained/QALY</th>
<th>Health economic evidence</th>
<th>Rank order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition and actual state / action or intervention</td>
<td>Level of severity: Very high High Moderate Low</td>
<td>Benefit/effects: Very high High Moderate Low</td>
<td>Evidence grades 1-4, or Very good to Insufficient scientific evidence or Standard clinical practice</td>
<td>Low, Moderate High Very high or Cannot be appraised</td>
<td>Good Some Calculated or Estimated</td>
<td>1-10, “Don’t do”, R and D 1-2</td>
</tr>
</tbody>
</table>

1 Research and development
2 1 is highest, 10 is lowest priority rank. “Don’t do” = “no medical benefit or harmful”. The R and D label was used for interventions of unknown benefit and in need of evaluation.

Figure 1. National Model for Transparent Vertical Priority Setting in Swedish Health Care.
The first row shows analytical categories and the second row shows measures used. Adapted from: Carlsson and others (2007). Figure 2: Work sheet for facts and rank order.

By including the above prioritisation analyses, since 2003, the Board shifted from publishing State of the Art documents intended for health care professionals, to developing a system of national guidelines for care intended for health care decision-makers at all levels.82, 83 Guidelines subjects are primarily the largest or most costly care processes.84

78 Carlsson and others (2007).
80 Methodological development was performed mainly in The Region of Västra Götaland and Östergötland County Council. (For documentation from Västra Götaland, see Calltorn and Bergh (2002). For documentation from Östergötland, see Prioritisation Centre Reports 2004:4, 2004:8 and 2005:7. Available at: http://www.imh.liu.se/halso-och-sjukvardsanalys?l=sv
81 One of the Model’s main inventors is Erling Carlsson, cardiologist, who also played a central part in the priority setting process in Östergötland County Council during 2003. (See introduction to chapter 2 above).
82 In 2000, The Board started this development by including health economic league tables in a revision of the existing national guidelines for coronary care.
83 In June, 2010, there were ten published national guidelines, one was preliminary and four were under development.
84 In 1996, the ten most costly health care processes were identified, eg, cancer, stroke, diabetes, coronary diseases, or asthma/COPD. (Ministry of Health and Social Affairs, 1996). These were also subjects to national guidelines and priority setting.
The Board practices broad participation in guidelines production as well as inclusive forms for information. Because its arguments and the recommendations are made public, an analytic “gold standard” tool is used and participation and perspectives are multi-professional, guidelines are revised regularly, and the Board enforces these procedures, they can be judged to meet the A4R framework\(^{85}\) requirements for publicity, relevance, revisability and enforcement. Over time, the methodology has been used by or presented to large numbers of concerned professionals.

### 4.4 Summary of early national level efforts

Holm (1998) labelled the “first phase” of priority setting a search for “the simple solutions”, or more explicitly “a search for priority setting systems which, through a complete and non-contradictory set of rational decision rules, could tell the decision-maker precisely how a given service should be prioritised in relation to other services”. Holm considered the Swedish system to be a “more or less successful embodiment of this ideal”.

However, Holm’s summary does not match the parliamentary message as described above. Rather, it depicts the task as later transformed by the Board. Holm goes on to describe the “second phase” of priority setting as characterized by the insight, that “there is no principled way of making priority decisions; Decisions made through the correct priority setting process are thereby legitimate; The correct priority setting process is characterised by transparency and accountability.”\(^{86}\)

He depicts a process recommended by the 1997 Norwegian prioritisation report\(^{87}\): “a bottom-up system based on specialty specific working groups. Each working group is given the task of defining severity, utility, and efficiency in its own specialty...These recommendations are passed on to government, which decides on priority. This should be a continuous process and the participation within groups should be broad. One of the effects of implementing this system would be that professional groups, politicians, and administrators would have to state explicitly their reasons for making allocation decisions... [I]t will be a radical experiment in transparent and accountable priority setting in health care.” This description depicts the factual priority setting procedures later performed within the framework of national guidelines\(^{88}\) which combines instrumental and participatory approaches, bases the analysis on clinical evaluation and let county council politicians make decisions on that basis. In Holm, the horizontal

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\(^{85}\) Daniels and Sabin (1998), Daniels (2000).

\(^{86}\) Holm (1998), p 1001.

\(^{87}\) Sosial- og helsedepartementet (1997).

\(^{88}\) It also partly reflects the priority setting activities taken on by the Swedish Society of Medicine (2004). The Society, however, is a professional organisation without formal connections to the health care management system.
perspective is left aside, ie, the interrelation between guidelines. In the Board’s
guideline development, the interrelation is recognized as a future challenge that
has not been managed.

4.5 The dismissal of the Priority Groups

As noted, the National Board of Health and Welfare paid no attention to the
priority groups when acting on the parliamentary decision. There is a debate\(^89\)
about whether these groups constitute an obstacle to the priority setting process,
contrary to the intention to express core values and a desired outcome.

As demonstrated in Box 1, the prioritisation objects\(^90\) shown by the priority
groups consist of patients groups, medical specialties, treatments or conditions.
The Prioritisation Centre\(^91\) and the Board\(^92\) recommend that the groups should
be abolished because some people use them in a manner that blocks vertical
priority setting, eg, among cancer patients or children. The arguments are that
cancer is a chronic, life threatening disease or that children lack autonomy –
conditions that characterize groups Ia and b in the parliamentary decision.\(^93\) In
other words, there is a risk that users regard the grouping as complementary
ethical principles for vertical priority setting rather than as illustrative examples
of applying the ethical template to horizontal priority setting.

These criticisms are relevant if the groups are used for priority setting on mi-
cro (bedside) or meso (patient groups) levels. I would argue, however, that the
very composition of the priority groups expresses egalitarian values\(^94\) and helps
decision-makers apply such values in horizontal priority setting. Dismissal of
these groups would therefore have an impact on the factual and value-laden
content of the parliamentary decision.

As noted, the Commission clearly stated that care for group Ib patients was
underfunded and that there were “considerable deficits in the care of chroni-
cally ill patients or the elderly.” The Commission wrote that such resource allo-
cation is not “in concordance with humanistic views, the ethical template or the
basic motives for a publicly financed health care [characterized by solidarity]”.\(^95\)
That is, the groups were used to illustrate a message for politicians.

The parliamentary decision to merge the priority groups Ia and Ib enforced this
idea and emphasised that no difference in rank exists between those subgroups.
While the parliament noted that all health care systems would prioritize life-

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89 Mainly between the Prioritisation Centre, the Board and the Swedish National Council on Medical
Ethics.

90 “What is ranked and actual for choice we call a prioritisation object.” Carlsson and others (2007),
Abstract p II.

91 National Centre for Priority Setting in Health Care (2008).


93 This also happened in the VCC priority setting process described in paper III.

94 As summarized by Williams (1988).

threatening conditions or high-tech emergency care, the Commission highlighted the factual situation where the severely chronically ill, the dying and those lacking autonomy suffered from lack of funding.

4.6 Concluding remarks

Although the Board transformed and deviated from the parliamentary primary intentions, it took actions according to its area of responsibility and made substantial methodological efforts. Criticisms for any lack of implementation efforts should be directed towards health care decision-makers at the county or regional levels. In 2004, the National Audit Office criticised the government for focusing on access rather than priority setting in health care.\textsuperscript{96} While the parliament, with the help of the National Action Plan, prioritized resources for the underprivileged or underfunded, county or regional politicians and managers did not generally assure that the funds reached their targets. They also did not adjust their management systems to suit or allow for local priority setting decision-making, or prepare themselves for making the political priority setting decisions intended by the reformed national guidelines. The basis for this resistance and how to overcome it constitute the main interest of this thesis.

\textsuperscript{96} Swedish National Audit Office (2004).
Part III. The User Organisation

5. County council health care

As noted, stakeholders lacked strategies for action as well as the political and administrative prerequisites for explicit prioritisation. Knowledge production was inappropriate or scarce. Co-operation in priority setting between stakeholders was limited or non-existing. Moreover, the Priorities Delegation (2001)\(^{97}\) described a strong tendency among all stakeholders to avoid ultimate responsibility for prioritisation decisions.

In 2007, the long-term impact of the 2003 National Guidelines for Cardiac Care was investigated.\(^{98}\) The authors concluded that the target organisations’ management systems for resource allocation had difficulty in handling consequences of the guidelines.\(^{99}\) A reasonable conclusion is that not only priority setting itself, but also the character of the outcome of such procedures—irrespective of its legitimacy—was not fully compatible with existing health care management systems.

In all, these tendencies indicated resistance or inertia within the health care system towards the priority setting mission as interpreted above. To understand the sources for such resistance, the user organisation must be analysed.

5.1 The priority setting task in relation to health care goals

As Alan Williams\(^{100}\) said, the overall and general goals of health care systems are “to improve population health, and to reduce inequalities in health.” He argues that these goals tend to be “transformed” through the operationalisation process and result in statements such as: “To provide health care for the population, and ensure equal access to health care”.

I find it difficult to understand the “transformation process” that Williams refers to, because in this case, one set of goals cannot logically be derived from the other. Nor does access or provision of care serve as an intermediate measure of population health or inequalities in health. For that to happen, you need to know that the system really produces health gains. I would suggest that the two sets of goals reflect different stakeholder positions towards health care, namely those of politicians (a population perspective) and managers/administrators (an organisation perspective), respectively.

However, the two sets can serve other purposes, namely to illustrate different missions for health care systems. As systems theorist West Churchman (2002)

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\(^{97}\) Ministry of Health and Social Affairs (2001).
\(^{98}\) Garpenby and Johansson (2007).
\(^{99}\) These guidelines were the first to include priority setting.
\(^{100}\) In Williams and Klein (2001).
points out, a system is defined by its goal.\textsuperscript{101} If we accept this, the two sets represent different management systems and can help us understand the dynamics of incorporating priority setting into traditional health care management systems.

The latter set of goals – “To provide health care for the population, and ensure equal access to health care” – seems appropriate when stakeholders external to health care services delivery (such as patients and the public) consider the content of health care, (ie, the quality and outcome of clinical processes) to be problem-free. To be reasonable, such a set of goals and approach towards health care services requires the following conditions:

- The concept of illness, and therefore also the definition of who is a patient, is confined to conditions where symptoms are objectively assessable and where curing is a treatment goal;
- There is societal consensus about the medical profession’s legitimacy and its autonomy is high; ie, the physician authority is not disputed;
- There is concordance between growth of medical treatment options and economic resources; ie, funding of new treatments, and thus health care needs, are covered by more resources.

In such a case, there is no argument about who is a patient. At least theoretically, stakeholders can foresee and count the expected patients volumes. Stakeholders do not have to worry about system effectiveness because the doctors are experts and do the right thing. Also, there is enough economic growth for funding health care expansion. Priority setting based on resource scarcity is not an issue.

Walt and Gilson (1994) depict a similar situation that was dominant before the introduction of New Public Management\textsuperscript{102} in health care, “when the state played a strong central development role”. At that time, they write, “health policy had been decided largely on consensual grounds, partly because it was controlled by medical elite. During this period health policies were largely uncontroversial, received broad (if passive) support from the population, and appeared as ‘low’ political issues on the political agenda”. This picture is also described in Hallin and Siverbo (2003) as the foundations of the Swedish health care system.

Under circumstances when demands are predictable, health care systems’ development is foreseeable and planning can be done. Administrative management systems do not include management of professional activities or results because of societal trust of the medical profession. In such situations, relevant

\textsuperscript{101} West Churchman (2002), p 34.
\textsuperscript{102} More precisely to the form of the Structural Adjustment Programmes of the World Bank and the International Monetary Fund. Walt and Gilson speak about the situation in developing countries, but the introduction of NPM in health care was worldwide.
measures of performance focus on equity in access for all patients, volumes of care produced in relation to resources, and life-years gained. I refer to this as “the planning era”.

The former set of goals for health care services – “To improve population health and to reduce inequalities in health” – is appropriate in a situation where:

- The concept of illness, and thus the potential number of patients, is widened substantially. This is partly due to the growing prevalence of chronic and biopsychosocial illnesses that force health care to focus on quality of life as a treatment goal since cures are often unobtainable. Another reason is the exponential growth of medical treatments which results in continuous redefinition of health states into illnesses and thereby new patient groups are added to the health care realm. New disorders and new indications for existing drugs are constantly introduced by the pharmaceutical industry;

- Despite societal economic growth, resources are insufficient for all new treatment options; ie, resource strain has to be managed;

- Evidence points to inexplicable treatment variations between clinics and negative side effects of treatment;

- Asymmetry in power and information between patient and doctor diminishes because of general democratisation, improvement of the educational level among the public and access to medical information (eg, on the internet).

The two latter conditions challenge the authority of the medical profession. Under these circumstances predictability diminishes and planning becomes more difficult for health care management. Setting reasonable limits to health care and securing equity in resource allocation and use, and assessing treatment outcomes in terms of health gains, become central issues. The follow-up system focuses on whether population health was improved and inequalities were reduced with help of questions like: “Who received care in relation to prioritisation rules? On what criteria? And to what effect?”

These very questions are central to priority setting. Thus, in order for health care systems to implement the priority setting technology, they must have or create managerial capacity to provide answers to those questions and to take action when resource allocation is suboptimal. I will refer to this situation as “the prioritisation era”.

5.2 Organisation theories applied to health care

Any definition or description of an object determines our understanding of it. Therefore, the choice of metaphor or theoretical model is essential for our understanding of the health care organisation, and consequently, for our understanding of how to manage it.
5.2.1 Hierarchical bureaucracy and network theories

In Sweden, politicians at all levels are responsible to the public for systems’ performance. Their legitimacy is partly constituted by public institution and organisation abilities to perform in accordance to values such as instrumentality, neutrality, universality, specificity, and predictability. These also constitute the goal values of bureaucracy.

The political and the overall administrative management system\textsuperscript{103} is built on a Weberian\textsuperscript{104} bureaucratic ideal of a top-down, functional hierarchy where administrators clarify political decisions into directives, which in turn are implemented by the help of (clinical) managers. Thus, decisions are filtered down through organisational levels to the caregiver. Administrators are supposed to support politicians and managers at all levels by managing the information process. This process is dominated by yearly planning and follow-up activities.

Whether health care organisations represent the Weberian, hierarchical bureaucracy ideal type is disputed. Hallin and Siverbo (2003) argue that while huge health care organisations are said to bear bureaucratic features, hierarchic authority (the cornerstone of bureaucracies) that may be valid within health care services and management, is invalid in relations between politicians or managers and the medical profession. This is because professional authority is built on profession-specific knowledge.

Bureaucracy and bureaucrats have been subject to criticisms and said to cause institutional inertia and lack of health care system responsiveness to public expectations. In a review of influences on the health care decision-making process, Hauck, Smith and Goddard (2004) describe bureaucrats as one “locus of potential self-interest”, striving to “maximiz[e] their influence”.\textsuperscript{105} This is because “[at] the center of bureaucratic models is the implication that bureaucrats receive power and remuneration in proportion to the size of the enterprise they control”. However, it could also be argued that medical specialities strive to maximize their relative influence, power and remuneration with the help of the specialisation process. Self-interest in this sense would therefore not be specific to bureaucrats.\textsuperscript{106}

The descriptions of bureaucrats as acting only in their own self-interest and bureaucracy as a wholly negative entity could also be disputed. In a review of the idea of trust in relation to health care, Gilson (2003) notes that the goal values of bureaucracy described above also constitute a basis for public trust in the health care system. This is because the goals aim at vertical justice; similar cases should be treated alike despite personal characteristics of either the citizen or

\textsuperscript{103} In contrast to clinical management, which usually refers to specific processes of care or patients’ groups.

\textsuperscript{104} Hillier (1987).

\textsuperscript{105} Hauck, Smith and Goddard (2004). p.44.

\textsuperscript{106} This is further elaborated in sections 5.3.3 and 5.3.4.
the bureaucrat. In a critical appraisal of Parsons and other sociologists, Waitzkin and Waterman (1976) point to Parsons’ description of doctors’ “normative patterns” or techniques used to “limit the unconditional allegiance with patients”. Such techniques are “functional specificity”, “affective neutrality” and “universalism”. They are almost the same norms as those central to the bureaucratic ideal. Thus, bureaucratic features thus are not only described as obstacles to change but could also be regarded as a means to secure democratic values and professional norms of equity.

Blomgren, Lindholm and Sahlin-Andersson (1999) claim that county councils are not organisations at all. This is because “an organisation is supposed to have clear boundaries and management is above all about identifying and improving processes supposed to be more or less internal. Especially for county councils, a model so strongly underlining the boundary between what is considered internal and or external, is problematic.”

Instead, these authors advocate the use of a network metaphor. This is because network theory emphasizes relations between actors, activities and resources, networks share features with both organisations and markets, and relations are binding and limiting, but also allow for development. The authors argue that knowledge about key relations is fundamental for an understanding of county council function, development and management. Relations characterized by reciprocal respect, trust and loyalty are important assets for actors within networks. To create trustful and reliable relations takes time, engagement and resources. Blomgren and colleagues think that this insight should constitute a foundation for network management.

5.2.2 Health care organizations as complex adaptive systems

Health care organizations provide human services. According to Kouzes and Mico (1979), the founders of the Domain Theory, such organisations differ from business organisations in terms of goals, connections of events and units, means-ends relations and outputs. These are the why, what, how and the results. While business organisations are described with adjectives such as clear, explicit, visible and tangible, human service organisations are said to be ambiguous and intangible. This early description portends the characteristics later used to describe complex, adaptive systems.107 Such metaphors make other traits of health care apparent.

Health care organisations are often thought of as systems.108 Irrespective of level, systems are defined by a common aim. Systems are also inert or resistant to information that conflicts with aims or core values.109 According to the WHO,
which promotes a systems thinking approach, health systems can be thought of as constituted by six building blocks. However, the blocks themselves do not make the system: “It is the multiple relationships and interactions among the blocks...that convert these blocks into a system....Health systems are often seen as monolithic, as a macro system with little attention paid to the interaction among its component parts, when in fact they are a dynamo of interactions, synergies and shifting sub-systems...within every sub-system is an array of other systems. All systems are contained or ‘nested’ within larger systems”

“The most complex systems are social systems, and health care organizations are the most complex within that subdomain” is the summary of Begun, Zimmerman and Dooley (2003) when applying complexity science to health care.

According to McDaniels and Driebe (2001) complex adaptive systems (CAS) are built on cornerstones such as agents, interconnections or relations, self-organisation or emergence, and co-evolution. Begun, Zimmerman and Dooley (2003) focus on slightly different aspects by stating that CAS are recognized by their dynamic state and robustness.

CAS “are made up of a large number of agents that are information processors”. In a health care system, agents could be individuals, clinics or even processes of care. All agents can “process information [among them or from the outside] and react to changes in that information”. All agents are diverse, and this diversity is “a source of novelty and adaptability” because they each have different information. No agent has information enough to “understand the system in its entirety”. The essence of a CAS is not the nature of its agents, but the relationships between them. Therefore, to understand a CAS, one must understand the patterns of relationships. These relationships are non-linear, which means that inputs are not proportional to outputs. Small changes can lead to big effects and vice versa.

“The large numbers of agents...the connections among the agents, and the influence of external forces all combine to result in constant and discontinuous change in the CAS” that is a dynamic state.

The non-linear interactions between agents result in unpredictability, which in turn leads to self-organization or “spontaneous emergence of new structures and new forms of behaviour.” The robustness of a CAS emanates from its ability to adapt, but also to resist change. This is because of the combination of loose and tight relations that make CAS flexible. “Loosely coupled structures cushion

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110 De Savigny and Adam (2009).
111 Service delivery, health workforce, health information, medical technologies, health financing and leadership and governance.
112 De Savigny and Adam (2009), p 31-32.
113 McDaniels and Driebe (2001), p 15.
114 Begun, Zimmerman and Dooley (2003), p 256.
and moderate response to strong shock. More tightly coupled structures tend to ‘lock-in’ to a response...As a whole, the complex structures provide multiple and creative paths for action. If one pattern of interdependency in a network is disrupted, other units can respond due to their interdependence with the disrupted unit.”\textsuperscript{116} Therefore a complex system can adapt to “a wide range of environmental change”\textsuperscript{117}, resulting in robustness and resilience.

5.3 Characteristics of stakeholders in priority setting

Kouzes and Mico (1979) not only contrasted health care to other enterprises, they went further by identifying main agents or stakeholder domains and their relationships. Their analysis, despite preceding the application of complexity science to health care, adds to the general understanding of health care organisations as complex, adaptive systems.

According to Kouzes and Mico, health care cannot be understood with only one management paradigm. Instead, health care consists of three stakeholder domains; “The policy domain, the management domain and the service domain—each of which functions by a separate set of governing... principles, success measures, structural arrangements, and work modes (or technologies).”\textsuperscript{118, 119}

Not only are these governing sets different but “each set...is incongruent with the others, and...each domain gives rise to its own legitimating norms which contrast with the norms of the others. The result of the interactions of these domains is an organization that is internally disjunctive and discordant.”\textsuperscript{120} Furthermore: “These [sets]...that serve to organize integral domains, also serve to separate and disconnect the domains from each other. They promote separate identities – identities associated with the domains – and inhibit the development of a common vision of the [health care organisation].”\textsuperscript{121}

The authors emphasise that each domain “has an important and legitimate role to play in democratic societies, and each is organized in functional and coherent ways that are appropriate to the performance of its primary task”.\textsuperscript{122} Figure 2 summarizes the governing principles, success measures, structural arrangement and work modes of each health care domain as described by Kouzes and Mico (1979).

\textsuperscript{116} Begun, Zimmerman and Dooley (2003), p 258.
\textsuperscript{117} Ibid.
\textsuperscript{118} Kouzes and Mico (1979), p 456.
\textsuperscript{119} Hallin and Siverbo (2003) also use domain theory for an overall description of Swedish health care. Östergren and Sahlin-Andersson (1998) make a similar description and speak about “three worlds”.
\textsuperscript{120} Kouzes and Mico (1979), p 456.
\textsuperscript{121} Ibid, pp 458-9.
\textsuperscript{122} Ibid, p 457.
### Figure 2. The three domains of human service organisations. Adapted from Kouzes and Mico (1979), figure 2 p 458.

While three decades old, the framework remains useful for an understanding of cultural differences between the main health care stakeholders. Specific features of the user organisation that are of importance for implementation success or failure can thereby be understood. I have limited the description to stakeholder traits or actions of relevance. When applying this framework to the Swedish setting, I make some complementary remarks with the intention of enhancing the description.

#### 5.3.1 The Policy Domain

According to Kouzes and Mico (1979), policy makers “have developed structures and work modes necessary to respond to the articulated needs of diverse communities.” In the Swedish case, the policy makers will primarily be politicians, but may sometimes be representatives of patients groups or specific target groups among the public.

The driving principle of the policy (or political) domain is said to be to reach the consent of the governed or those represented. Policy making success will be evaluated in terms of whether equity, however defined, improves. The organisational structure of the domain is characterized as representative or participative. Politicians, or public or patient representatives by some election or selection procedure, act as representatives of their voters, fellow citizens or patients groups. They perform their work by voting, bargaining and negotiation. (See Figure 2).

Applying this description of the political domain to the Swedish setting, differences between political levels and ideologies appear. Political rhetoric in early parliamentary debates stressed the importance of priority setting as a means of securing horizontal equity. County council decision-making processes and incentives mainly focused on equity in access by improving productivity and reducing waiting lists for patients, regardless of gravity of illness.

During the 1990s, health care budgets were strained and the growing needs of an ageing population were met by structural changes. By shifting responsibilities

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123 Kouzes and Mico (1979) p 457.
for care of the elderly from county councils to municipalities, patient flow through hospitals was increased. At the same time, the results of the medical paradox, ie, better treatment results in more patients to treat, started to take effect. Increased emphasis was put on care in outpatient clinics, primary care facilities or patient homes. Between 1994 and 2004, the average length of hospital stay in Sweden was reduced by 15 percent or more\textsuperscript{124}, although older and sicker patients were given advanced treatment.

As noted by the Swedish National Audit Office (2004), these changes were scarcely discussed in terms of prioritisation. Anell (2005) summarizes political action between 1990 and 2005: “Whilst national government reforms have focused on the transfer of responsibilities between government levels and on the problems of access and equity, local governments have, since the early 1990s, experimented with the purchaser-provider split\textsuperscript{125}, new forms of provider-payment mechanisms, patient choice of providers and privatisation.”\textsuperscript{126}

In spite of the intentions of the government Action Plan, county councils did not reallocate resources from somatic, hospital care to primary and psychiatric care. Providing long-term care for chronic illnesses, care for elderly patients with multiple diseases and palliative, terminal care remained nationwide problems.\textsuperscript{127}

More recently, political focus at the governmental level has changed. In 2010, the new conservative/liberal government introduced a national primary health care reform. The intention was to improve access and productivity\textsuperscript{128} and was based on patient choice of providers. This portrayed an understanding of the patient as a consumer of care rather than care being a public good to be provided based on need.

5.3.2 The management domain

According to Kouzes and Mico (1979), “technocratic bureaucracy” constitutes the main principle or paradigm for the management domain. “[The paradigm] supposes that management is the appropriate domain for the exercise of influence over the organizational sphere, and it assumes that the most applicable principles for the operation of organizations are those of hierarchical control and coordination.”\textsuperscript{129} Further: “The managers have developed mechanisms to respond to their accountability for efficient use of resources and attainment of goals.”\textsuperscript{130}

Management success is to be evaluated in terms of improved cost-effectiveness. The organisational structure is built on hierarchical control and coordination of a

\textsuperscript{124} SALAR (2006).
\textsuperscript{125} See section 7.3 for more on the purchaser-provider split.
\textsuperscript{126} Anell (2005), p 8237.
\textsuperscript{127} Ministry of Health and Social Affairs (2001b and 2004).
\textsuperscript{128} Coined Vårdval (Choice of care).
\textsuperscript{129} Kouzes and Mico (1979), p 451.
\textsuperscript{130} Ibid, p 457.
ctivities. The work modes consist mainly of linear techniques and tools, ie, “Management by Objectives, Program Planning and Budgeting Systems.”\textsuperscript{131} Applied to the Swedish setting, this description needs supplementation. As noted above, Swedish management systems were generally not adapted to priority setting, or even to handling a ready-made knowledge base such as national care guidelines.

As pointed out by Hallin and Siverbo (2003) and Anell (2004), the political and administrative influences on the health care professional domain, and thus on the processes and results of care, are limited. Despite recent development (see section 6.4.2), data on clinical performance are not typically used as a basis for management at any level. Existing managerial information systems are dominated by a cameralistic perspective, focusing on finances rather than services, and on the internal aspects of the organisation. Thus, cost-effectiveness in the true sense is not an issue for management.\textsuperscript{132} If it were, resource use and effects in relation to condition would constitute a basis for information systems.

Instead, cost containment continues to be a management focus. While information on cost-effectiveness would serve well for measuring equity in health or population health, cost containment is not an intermediate measure of that dimension. Management systems thus designed correspond to the planning era as defined above. Furthermore, program budgeting is not a norm in Swedish health care. Instead, departments are the basis for budgeting. While programs would be horizontal, eg, correspond to processes of care, organisations built on departments instead are vertical.\textsuperscript{133}

In many county councils political decision-making only relates to resource allocation between high-level organisational structures such as hospitals, primary care or psychiatric care. This is meso level decision-making in Klein’s (1993) terms.\textsuperscript{134}

The prioritisation of patient groups or processes of care in such a system is a matter for the clinical management system, and out of reach for political or administrative scrutiny.

5.3.3 The professional domain

According to Kouzes and Mico (1979), the professionals “have developed their own modes to respond to demands for quality care of their clients.” Their guiding principles are said to be autonomy and self-regulation. Success is measured in terms of quality of clinical service and good standards of practice. The structural arrangement is said to be collegial.

These characteristics, especially those of autonomy and self-regulation, indicate that Kouzes and Mico equate the professional domain to the realm of the medi-

\textsuperscript{131} Ibid, p 452.

\textsuperscript{132} This might help explain why there are very few health economists in Swedish health care systems, as noted by Drummond and colleagues (2006).

\textsuperscript{133} See section 6.4.1 for more on the subject of vertical versus horizontal organisational logic.

\textsuperscript{134} See section 2.4.
cal profession. Physicians often represent the ideal type of professions, according to Kragh Jespersen (1999), with “long, formal education, status as specialists, autonomy, the right to choose the means of achieving, and also partly the aim of their tasks, a societal monopoly by authorisation, service orientation and internal control.”135

Clinical organisations are multi-professional systems. In 2009, there were 331 different professional groups in VCC.136, 137 Measuring clinical success in terms of quality of service and good standards of practice, and a work mode characterized by client-specific problem-solving, might characterize most health care professionals.

Collegiality only characterizes the internal structure of the medical profession and perhaps a limited number of additional health care professional groups such as psychologists or physiotherapists with formal status as professions or semi-proessions. The main organisational trait of health care services is that of a functional hierarchy with the physician at the top and the auxiliary worker at the bottom, with positions built on specific knowledge.138

This hierarchy is also strictly genderized with 80 percent female employees and men and women dominating separate professions and even medical specialties (Table 1).

Table 1. Gender pattern among major Swedish health care professional groups, 2009. Percentages of females per group.

<table>
<thead>
<tr>
<th>Professional groups</th>
<th>Females, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses including midwives and biomedical scientists</td>
<td>90</td>
</tr>
<tr>
<td>Social work</td>
<td>88</td>
</tr>
<tr>
<td>Cleaning, cooking</td>
<td>86</td>
</tr>
<tr>
<td>Assistant nurses</td>
<td>86</td>
</tr>
<tr>
<td>Psychologists and -therapists</td>
<td>75</td>
</tr>
<tr>
<td>Physicians, non-specialists</td>
<td>58</td>
</tr>
<tr>
<td>Physicians, specialists</td>
<td>42</td>
</tr>
<tr>
<td>Technicians including craftsmen and engineers</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: SALAR, June 2010, personal communication

Melander (1999) describes the professional orientation of physicians as individualistic, competitive, highly ambitious and distrustful of the administrative organisation’s ability to support these ambitions. In contrast, he describes the professional orientation of nurses as collectivistic, patient-related, cooperative and regarding the organisation as a tool for securing patient health care needs.

135 My translation.
136 Waldau and Osika (2009).
137 Of these, 85% of women and 76% of men were distributed among nine major professional groups such as nurse, assistant nurse, physician, or a paramedic profession.
Kouzes and Mico’s description of the service domain appears relevant for an understanding of the relations between physicians and management and political domains. As elaborated below, there is consensus in the literature that although physicians constitute a minority of health care staff, their professional logic is dominant and specialisation has been the main force behind clinical organisational development.\(^{139}\) Therefore, a reasonable understanding of the medical profession is key to any understanding of health care organisational culture. For a full description of the character of “the players” (North, 1990)\(^{140}\) in health care services organisations, more aspects should be included.

5.3.4 The Priority Groups in relation to clinical prestige

As previously noted, the Commission highlighted a factual situation where the care for severely chronically ill, the dying and those lacking autonomy was subject to lack of funding. This imbalance in resource allocation might be imposed by driving forces within the health care service domain rather than by external political management. Research indicates that it reflects the impact of an order of prestige embedded in the clinical organisational culture.

Album (1991) has demonstrated the existence of an “unconscious but well known”\(^{141}\) hierarchical order of illnesses and medical specialties in health care in terms of their relative prestige. His findings were replicated in Sweden.\(^ {142}\)

Later, Album (2005)\(^ {143}\) and Norredam and Album (2007) described how prestige is constituted through interaction between stratifying parameters among diseases, patients and treatments, most of which operate in the same direction. For diseases some parameters are the organ’s position in the body and whether the disease is acute or chronic. For treatment, whether the intervention is active or not and the extent of technical equipment use are the basis of prestige. For patients, parameters such as age, sex, patient-doctor mismatch, or whether the disease results in helplessness or disfiguration are important. Norredam and Album suggest that differences in prestige might have an impact on actual priority setting in health care systems.

Research suggests that “professions exist in a system of professions, a system highly characterized by competition. Within and between these professional hierarchies there is a continuous struggle for resources, prestige and influence in the organisation”.\(^{144}\) Research also underscores that clinical specialisation “constitutes a fundamental principle for organisation of health care.”\(^{145}\) Anell (2004) straight-
forwardly claims that among driving forces “the internal professional competition among physicians of different specialities has had the greatest impact on health care organisation and the overall structures.”¹⁴⁶ The mere posing of such a statement transforms the situation from an unconscious and static cultural feature to a social order potentially subject to discussion and challenge.

As a consequence of this reasoning, shifting the balance in resource allocation would constitute a threat to embedded values that are held and shared by health care stakeholders despite their explicit recognition of the ethical template.¹⁴⁷ Because of the connections between values, social prestige, specialities and influence, adjustment of the resource balance would include adjusting power balance. This may arouse foreseeable resistance among those at risk of reduced power and/or prestige.

6. Implications for health care management systems

In this chapter, I will describe the general requirements for change in existing health care management systems caused by the decision on priority setting and by understanding health care as complex adaptive systems. Epidemiological change and general experiences of NPM are described as causes. Furthermore, I will describe some recent traits in Swedish management discourse related to these causes.

6.1 Comparison of existing and requested health care management

My analysis implies that the Swedish parliamentary decision on priorities in health care was in conflict with existing organisational cultures in all health care domains. By focusing on equity and justice in resource allocation, as well as on outcome and quality of health care, I argue that the decision foreshadowed a shift of the ultimate health care goal. Besides the call for a shift in resource allocation and setting limits to health care services, it sent a message to political and health care administrative and clinical management to:

- Build rationing systems based on the ethical template and make decisions and rationing reasoning public;
- Reformulate health care goals towards life years or quality of life gained;
- Reform the line of decision-making and information to one of assessing needs, allocation of resources and outcome in terms of effects on health.

For this to happen, clinical decision-making and information on clinical performance must be connected to the political and administrative management system. Figure 3 illustrates the profound differences between the existing health care system and the one designated by the parliamentary decision.

¹⁴⁷ As shown in surveys performed by the Commission.
<table>
<thead>
<tr>
<th><strong>Traditional health care organisation</strong></th>
<th><strong>New health care organisation as indicated by the parliamentary decision on priorities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong> *</td>
<td>To provide health care for the population</td>
</tr>
<tr>
<td>To ensure equal access to health care</td>
<td>To improve public health</td>
</tr>
<tr>
<td></td>
<td>To reduce inequalities in health</td>
</tr>
<tr>
<td><strong>Aim</strong></td>
<td>Producing volumes of care</td>
</tr>
<tr>
<td></td>
<td>Open access to care</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>Life years saved Access</td>
</tr>
<tr>
<td></td>
<td>Productivity as volumes of patient visits or</td>
</tr>
<tr>
<td></td>
<td>numbers of staff</td>
</tr>
<tr>
<td><strong>Overall systems understanding</strong></td>
<td>Weberian bureaucracy</td>
</tr>
<tr>
<td></td>
<td>Open, adaptive and complex system</td>
</tr>
<tr>
<td><strong>Relations between domains</strong></td>
<td>Service domain isolated from administrative</td>
</tr>
<tr>
<td></td>
<td>and political management.</td>
</tr>
<tr>
<td><strong>Management logic</strong></td>
<td>Hierarchic organisation</td>
</tr>
<tr>
<td></td>
<td>Multiprofessional or stakeholder partnership</td>
</tr>
<tr>
<td><strong>Administrative focus</strong></td>
<td>Focus on finances and organisational matters</td>
</tr>
<tr>
<td></td>
<td>To bridge the professional and political</td>
</tr>
<tr>
<td></td>
<td>domains</td>
</tr>
<tr>
<td></td>
<td>To create systems for knowledge management,</td>
</tr>
<tr>
<td></td>
<td>ie, data on clinical quality and outcome and</td>
</tr>
<tr>
<td></td>
<td>equity in resource use</td>
</tr>
<tr>
<td></td>
<td>To support professionals in their goals of</td>
</tr>
<tr>
<td></td>
<td>creating the best outcome in terms of health</td>
</tr>
<tr>
<td></td>
<td>according to political goals and within</td>
</tr>
<tr>
<td></td>
<td>budget limits</td>
</tr>
<tr>
<td><strong>Management tools</strong></td>
<td>Hierarchic decision-making,</td>
</tr>
<tr>
<td></td>
<td>incentives, sanctions</td>
</tr>
<tr>
<td></td>
<td>Deliberation, organisational learning</td>
</tr>
<tr>
<td><strong>Professional orientation</strong></td>
<td>Saving lives</td>
</tr>
<tr>
<td></td>
<td>Physicians and biomedicine are at the centre</td>
</tr>
<tr>
<td></td>
<td>of health care</td>
</tr>
<tr>
<td><strong>Information content</strong></td>
<td>Focus on quantities of care, organisational</td>
</tr>
<tr>
<td></td>
<td>aspects, budget and finance</td>
</tr>
<tr>
<td></td>
<td>Focus on resource allocation in relation to</td>
</tr>
<tr>
<td></td>
<td>epidemiology, health outcomes, evidence</td>
</tr>
<tr>
<td></td>
<td>base and quality of processes</td>
</tr>
</tbody>
</table>

**Figure 3.** Tentative model describing traits of existing health care (HC) organisation in comparison to one indicated by the parliamentary decision on priorities

* Adapted from Williams in Klein and Williams (2001).

According to Berwick (1996) “every system is perfectly designed to achieve the results it achieves”. Therefore, if a change in outcome is to occur, the system has to be reshaped. Such a shift touches all stakeholders:

**Politicians** are responsible for horizontal equity in health. They need to re-formulate goals and to shift their focus in decision-making and evaluation from equity in access to clinical performance and outcome.

**Managers or administrators** are responsible for institutional capacity for implementation and decision-making. They, need to lead institutional reform and shift of organisational culture, and behave “as management consultants, not police officers”.148 In order for health care professionals to contribute data on

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148 Lilford and others (2004).
clinical performance and management to acquire legitimacy, management systems must build on respect for the clinical organisational logic and ethics.

Professionals are responsible for effective resource use, quality management, patient security and smoothly running patient flows. They need to revise clinical organisation and work, reorganise it on the basis of processes of care and provide information on outcomes. Nolan (1998) recommends that physicians recognise their power and ethical responsibility and learn about the nature of systems, including how to control and improve them.

6.2 Comparison to management of complex adaptive systems

Stacey (1996) summarizes the basis for management when understanding an organisation as a CAS: “[C]omplex adaptive systems...are not deterministic... They] produce order of a changeable and diverse kind that comes about in a spontaneous, emergent way...There is neither mission statement, nor vision, nor even a charismatic leader in sight...[T]his spontaneous self-organising activity, with its emergent order, is vital for the continuing evolution of a system and its ability to produce novelty. However...the system-wide strategies cannot be predicted from the rules driving individual agent behaviour.”

Important challenges for management are how to combine bottom-up, self-emergent organizing (the “how to do it”) with top-down directions on common visions, values and ambitions levels (the “where to go” and “at what pace”).

A management approach appropriate for CAS is described in McDaniel and Driebe (2001). Building on Thomas, Clark and Gioia (1993), they claim that in such systems “sense-making is more important than decision-making and the appropriate managerial strategy is to enhance the sense-making capabilities” of the organisation. Also, history should be used for learning. Reflexivity should be built into the organisation and supported by adequate structures and processes. “Success comes from capacity to learn and learning replaces control as a key managerial function.” Also, management should encourage the creation of connections and relationships in the organisation. The diversity thus created is a requisite for self-organization. This in turn is “needed to create order” and enhances the stability of the organisation. When thinking about the future, plans based on modelling and predictions are not appropriate in the uncertainty that characterizes a dynamic system. Instead, scenario planning helps the organisation deal with uncertainty. Involving agents in decision-making is proposed as a way to enhance system functioning in health care organisations.

152 For an extensive introduction to strategic leadership in health care understood as complex, adaptive systems, see McDaniel (1997).
In summary, a management based on understanding health care as a complex adaptive system rather than a bureaucratic one presupposes a shift of management vision and focus, structures and processes. From the vision of a CEO\textsuperscript{153} who knows all about the organisation and manages by controlling the information system, comprehensive planning, hierarchic decision-making, and limiting connections between co-workers, a shift is needed towards promoting diversity in agents and information, and to deal with uncertainty by reflexivity and flexibility rather than control.

Anderson and McDaniel (2000) describe eight key leadership tasks for management of professional complex adaptive systems versus professional bureaucracies. They are: 1) complicating vs simplifying; 2) loose coupling vs tight structuring; 3) diversifying vs socializing (ie, expecting the organisation to adapt to divergent individuals or the opposite); 4) building relationships vs defining (or confining) roles; 5) sense making vs decision-making; 6) learning versus knowing; 7) improvising vs controlling; and 8) thinking about the future vs planning based on forecasting.

The descriptions in the right hand column of Figure 3 regard the aim, relationships, management logic and tools as well as information content. All of these resemble the features of a management built on understanding health care as a complex, adaptive system. Accepting diversity, building bridges between agents, and replacing control with reflexivity are dominant in both cases.

A call for a shift of health care management culture is also addressed in writings from The World Health Organization (WHO) and The World Bank. In those instances, framing of the goal vision is one of “stewardship”. In a critical appraisal of the concept, Saltman and Ferroussier-Davis (2000) with the help of Donaldson, Schoorman and Davis (1997) contrast stewardship theory to agency theory. Whilst agency theory is said to be “oriented towards economic efficiency” and assumes “some form of Homo Economicus, depicting subordinates as individualistic, opportunistic and self-serving [...] stewardship theory depict subordinates as collectivist, pro-organizational and trustworthy.”\textsuperscript{154} In arguing for stewardship, Armstrong (1997) contrasts a “control oriented” leadership to “involvement oriented”. “For stewardship, structures should facilitate and empower, not control and monitor”, he writes. Building on trust and involvement, rather than mistrust and limitations of information and participation, allows for a value-based management that combines “both the need for efficiency and cost-effectiveness put forth by market-driven reforms and the higher-order tasks and responsibilities that are the calling of public servants.”\textsuperscript{155} Such management is intended to build “adaptive and generative learning organizations”\textsuperscript{156}

\textsuperscript{153} CEO: Chief Executive Officer.
\textsuperscript{156} Armstrong (1997), p 34.
As noted above, the WHO also recently recognized systems thinking as a basis for health care management.  

Conclusions of the potential impact on management of implementing the parliamentary decision on priority setting in Swedish health care were drawn deductively by comparing the parliamentary decision to central features of the present health care organisation. However, the conclusions resemble general calls for a shift of health care management culture and resonate worldwide. One motivation behind such a shift is a wish to combine efficiency and cost-effectiveness with a value-based endeavour for equity in public resource allocation. Another driving force is the insight that the cultures and values of organisations reflect in their practices. For public organisations to produce outcomes that are perceived legitimate among all stakeholders, democratic values and trust have to permeate the organisation and diversity must be regarded as a source of richness and opportunity.

That is to say, these management recommendations are not based solely on a different understanding or framing of the technical aspects of the health care organisation but also reflect a shift of fundamental values based on international experience. Of these, negative public health effects of introducing public economic management based on “agent theory” such as NPM resonated through the international medical community.

6.3 Management for priority setting

As noted above, literature on the consequences of integrating explicit priority setting for health care management systems is sparse. A search performed on the Web of Science in May, 2010, located one text about leadership in priority setting, but it is of minor relevance here.

Klein (2001) considers strengthening the “institutional capacity to analyse evidence, to clarify policy choices and to promote informed debate” as primary to putting ever more efforts into refining the information necessary for priority setting. As already noted, his reasoning touches only slightly on the management implications of priority setting. The institutions depicted in his reasoning resemble national bodies with clear decision-making assignments such

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157 De Savigny and Adam (2010).
159 For example, see the description of NPM at the WHO homepage (June, 2010). http://www.who.int/glossary/story084/en/index.html
160 The search was performed as follows: (health priorit* setting management (leadership or economy)); (health priorit* setting management); health priorit* methodology (micro or macro or level or meso)). Of these, MeSH terms (for PubMed use) are “Health priority/-ies”. In MeSH, “Management” is connected to 38 different subterms, whereof none is leadership or economy.
as NICE\textsuperscript{163} in the UK or the SBU\textsuperscript{164} in Sweden, rather than complexities such as county councils.

One core value in priority setting is that of legitimacy. Experience indicates that to be implemented, prioritization decisions must be perceived as legitimate both internally (among decision-makers, managers and health care staff) and externally (among the public). Also, internal legitimacy is necessary for external legitimacy to occur.\textsuperscript{165}

Legitimacy presupposes trust among those represented or touched by decision-making. In a review of the role of trust in health care, Gilson (2003) explains trust as a “voluntary action based on expectations of how others will behave in relation to yourself in the future”. She connects trust to legitimacy as follows: “Public organisations build their legitimacy when they demonstrate through organisational and managerial practices values and norms that underlie or are associated with trust.” Such norms or values are “solidarity, fairness and procedural justice.” And, as noted above, she claims that organisational culture is reflected in its behaviour: “Provider attitudes and practices towards patients are... strongly shaped by their own relationships with their managers and by the management practices of their organisations.”

\textbf{6.4 Swedish management discourse developments relevant to priority setting}

Some international trends resonate in Swedish management discourse and are relevant to the priority setting task.

\textbf{6.4.1 The epidemiologic transition in relation to health care organisation}

In 1986, Olshansky and Ault described “The age of delayed degenerative diseases”, a fourth epidemiologic era or pattern that characterises most Western societies. The pattern is constituted by “...the major degenerative causes of death... remain with us as the major killers, but the risk of dying from these diseases is redistributed to older ages.”\textsuperscript{166} This epidemiologic situation created a new environment requiring health care services adaptation.

Literature indicates that the dominating organisational logic\textsuperscript{167} of the health care services domain was traditionally one of emergency care.\textsuperscript{168} Organisational logics of care are characterised by differences in dimensions such as time (emer-
gency or not, process of care long or short); predictability (regarding occurrence or course of events); complexity; standardization versus individualisation; and sequential versus parallel processes.\textsuperscript{169}

In emergency care, the focus is on biomedical competence as the input. Defined acute diseases/injuries are the primary assignment targets. Short-term hospital care is the process. Reduced mortality is the primary outcome measure. Such organisations served well when “heart disease, cancer and stroke [were]...prime killers. Pneumonia, bronchitis, influenza and some viral diseases remain[ed] problems“.\textsuperscript{170} That is the “age of degenerative and man-made disease”, or the third epidemiologic age.

These features correspond to the epidemiological “planning era” described in section 5.1 and are characterised by acute illness, infections and accidents. The concept of illness and the boundaries of health care were confined to such states. The present epidemiological situation raises expectations for care for the chronically, multiply, or terminally ill, and for management of care for people with diffuse symptoms and undefined disorders. Subsequently, health care organisations that were built on functional specificity were criticised for inadequacy. Efforts to create continuous processes of care that bridge the vertical orientation of health care, especially for the elderly and chronically ill, were described internationally with the term “integrated care.”\textsuperscript{171}

In Sweden, plans to integrate care with social services for the elderly and the mentally handicapped resulted in transfer of responsibilities for long term care from county councils to municipalities in 1992. In a review, Anell (2005) concludes: “[b]ecause of the sharp reduction in numbers of hospital beds and average length of stay, both primary care units and municipalities...argue that patients are generally discharged sicker and in need of more attention...The general conclusion is that the reform was successful in terms of releasing bed capacity in hospitals. Problems have been identified, however, the most important being the more limited access to physicians for the elderly in nursing home care.”\textsuperscript{172}

Later the search for adequate management systems resulted in efforts to distinguish and build specific divisions separated by their organisational logics. The intentions were to reorganize health care by building processes of care from the view and needs of the patient and the actual flow of activities connected to different kinds of care.\textsuperscript{173} Comprehensive efforts performed in the Skåne Regional Council are described in Levin and Normann (2001). In that case, health care was organized according to four different logics termed “basic care, elective care, emergency care and home care”. Other similar concepts were “care close to home”,

\textsuperscript{169} Levin and Normann (2001), p 71.
\textsuperscript{170} Omran (1971), p 169.
\textsuperscript{171} Kodner and Spreeuwemberg (2002), Leichsenring (2004).
\textsuperscript{172} Anell (2005), p 8248.
\textsuperscript{173} Hulter Åsberg, Molin and Stattin (2000).
and “tertiary care” in addition to elective and emergency care. The idea was to capture different needs and expectations among groups of patients into packages, and reflect these in specific organisations, subject to different demands regarding effectiveness, development, incentives, external cooperation, resources, markets and competence needs.

These initiatives were intended to complement the vertical organisation of hospital care, (which was generated by the development of medical specialties), by horizontal lines of organisation. However, it seems that the discourse of organisational logics or integrated care was not connected to that of priority setting.

6.4.2 Knowledge management

Recently, a need for knowledge management was recognised nationally, and a call was made for revision of the education system of health care administrators, adequate for management of the professional domain of health care. Such management focuses on medical quality and outcome, with the main intention of improving quality of care and leveling out irrational differences in clinical practices with the help of EBM techniques and bench-marking. Its central features coincide with those described in the right-hand column in Figure 3.

Knowledge management presupposes data on clinical quality and outcome. In Sweden, such data are collated within the framework of the National Registries of Medical Quality, established during the last decades. The quality registries are defined as containing “...individualised data concerning patient problems, medical interventions, and outcomes after treatment...” The vision is to “constitute an over-all knowledge system that is actively used on all levels for continuous learning, quality improvement and management of all healthcare services.”

From being of interest only to professional enthusiasts and scientists, the registries have become sources of information contributing to national comparisons on clinical performance. Also, they receive funding from health care providers and the government. Approximately 70 registries and four connected competence centres received central funding in 2010. Each register is governed by a collaboration of medical professionals.

The comparisons are performed within the national framework of “Quality and Efficiency in Swedish Healthcare - Regional Comparisons.” They consist of a set of national performance indicators. In addition to the Quality Registries, data are collated from regional registries kept by the county councils, national registries administrated by the National Board of Health and Welfare (such as the Cause of Death Register and the Patient Register).

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175 Evidence Based Medicine.

176 www.kvalitetsregister.se

177 http://www.skl.se/web/Quality_and_Efficiency_in_Swedish_Health_Care.aspx
According to SALAR, one of the responsible stakeholders, the comparisons are intended “to inform and stimulate the public debate on health care quality and efficiency”, and to stimulate improvement of health care services “both in terms of clinical quality and medical outcomes, and in terms of patient experience and efficient use of resources.”178

Knowledge management could be inspired by three arguments that also constitute management aims. The first is democratic or political and corresponds to public demands for access to information on quality of outcome and services be accessible for scrutiny and political decision-making. The second corresponds to demands for equality and quality of care, which in turn correspond to medical ethics and the core of the medical profession. The third corresponds to patient rights to autonomy and wishes to be involved in the shaping of their care. Further, the more health care is privately produced, for reasons of competition between providers, the stronger the public and management interest becomes in outcome, quality and content of care.

Focusing on the second and third arguments above, the National Board of Health and Welfare has promoted knowledge management and added methodological support by developing quality indicators for “good care”. The concept comprises requirements for care to be: evidence based and (cost) effective; patient focused and secure; offered on equal terms; and timely. The concept thus corresponds to the success measures of the service domain and to political demands for equity in resource use as well as demands that the service domain keep the patient in focus rather than organisational matters or competition between specialities. The promotion of “good care” is supported by national directives for management systems in all health care organisations179 and by follow-up on implementation.

Driving forces behind the knowledge management movement can be found in societal changes such as higher educational level, better access to knowledge, growing expectations for quality health services and for equity in resource allocation and access. In competition or conjunction with the “Lean production”180 movement, it presently dominates Swedish health care management discourse. The two movements appear to be branches of the same theoretical tree, where the work of Deming (1986) constitutes the common stem.

The institutional capacity required for knowledge management is largely similar to what is needed for priority setting, according to the conclusions above. If aspects such as clinical performance, cost-effectiveness, and equity in resource allocation are included in management systems, priority setting will be close at hand. Thus, building such capacity would support priority setting.

Part IV. The case


7.1. The setting in brief – Västerbotten County Council

Västerbotten County Council is a regional body in Northern Sweden, with 10 000 employees and an annual operating budget of approximately SEK8B (~ US$1.1B). VCC is responsible for taxation, finance and planning of health care, dental care and care for the disabled for 250 000 residents. The council is also responsible for some parts of regional infrastructural planning and development. VCC covers a vast geographical area, stretching from the sparsely populated mountain areas in the west, to the relatively densely populated coast line of the Baltic Sea in the east. There are two major cities, Umeå and Skellefteå, on the coast and a smaller town in the interior, Lycksele, which is also known as a historical centre for the Sami population.

The health care system consists of approximately 30 primary care centres (at minimum there is one in each of the 15 county municipalities), secondary care hospitals in Lycksele and Skellefteå and a tertiary care, university hospital in Umeå. The latter is also responsible for highly specialised care for the 900 000 residents of the four northern counties.

The county is politically managed by the County Council Assembly with 71 delegates who are elected every fourth year. During the period described here, the majority was always on the political left side with the Social Democrats as the largest party and usually in coalition with the Leftist and Green parties. The County Council Executive Committee has 15 delegates and acts as a “government” between assemblies.

Three health and medical committees of nine delegates each are supposed to survey the epidemiological patterns and other health care related needs among populations in districts formed around each city. Together with the financial forecast, these surveys constitute an important basis for the yearly County Council plan and budget.

7.2. Combining implementation and research

In the process that is described below, I have simultaneously acted as a facilitator for implementation at management level and as a researcher. In 2004, my position as a strategic advisor on priority setting was formalized. My overall stance has been that of an action researcher student. Counter-arguments against such a stance are easy to find, with the most obvious being risk of positive bias in interpretation of the research results.

There are however general arguments in defence of combining the roles. In health care, demands for basing clinical practice on evidence are rising. Professional demands on managerial innovations should be similar. That is, operationalisation and implementation should be founded on best available theories and
empirical experience. Combining facilitation and research conveys such an ambition.

Connecting implementation to the international discourse on priority setting adds legitimacy to the efforts because the knowledge base used is open for scrutiny by all stakeholders and implementation participants. Performing research on local implementation efforts helps underline that these efforts are not so much about disseminating ready-made managerial strategies as part of a common, international learning and development process, to which the entire organisation has access and where all can participate.

In our case, what initially seemed to be ordinary, but innovative administrative activities, performed naively and without specific theory, grew into preparations for a major managerial shift. For reasons of legitimacy, these had to be founded in systematic evaluation and theory. However, research funds were scarce or non-existing. As noted, the prioritisation discourse is silent on managerial matters. In this situation, I thought it better to perform the research myself and to the best of my ability than to dismiss the idea of research altogether on principled grounds. I trust the research community to help disclose any bias where I have not been critical enough.

To help orient in the process, I will summarize some major events or development stages, their impact and my role or responsibilities in each.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>My responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>A political purchaser-provider system is introduced in the VCC.</td>
<td>Providing administrative support to purchasers-politicians. Providing administrative support to purchaser-politicians.</td>
</tr>
<tr>
<td>1993</td>
<td>Comments on edition 1 of the Commission Report on Priority setting.</td>
<td>Many including myself are introduced to the prioritisation discourse.</td>
</tr>
<tr>
<td>1994-</td>
<td>I take the Master of Public Health exam.</td>
<td>Deepening our understanding of the many dimensions of prioritisation.</td>
</tr>
<tr>
<td>1995-97</td>
<td>Production of study material based on the parliamentary decision: educating future study group leaders; follow-up on participant opinions on priority setting.</td>
<td>Deepening our understanding of the many dimensions of prioritisation.</td>
</tr>
<tr>
<td>1997</td>
<td>I am accepted as a doctoral student.</td>
<td>Many including myself are introduced to the prioritisation discourse.</td>
</tr>
<tr>
<td>1998</td>
<td>An interview series on priority setting is performed among departmen-</td>
<td>Confusion and a lack of implementation are revealed.</td>
</tr>
<tr>
<td>1999</td>
<td>tal managers.</td>
<td>The value of a needs perspective as opposed to an organisational perspective in political management becomes clear.</td>
</tr>
<tr>
<td>2000</td>
<td>Strategic project launched to prepare for a management system for priority setting in health care services.</td>
<td>First step in formalizing a political priority setting management system.</td>
</tr>
<tr>
<td>2001-</td>
<td>Strategic project launched to prepare for a management system for priority setting in health care services.</td>
<td>First step in formalizing a political priority setting management system.</td>
</tr>
<tr>
<td>2002</td>
<td>Political decision on prioritisation guidelines for health care services.</td>
<td>Key medical leaders and colleagues engage in guideline production and thereby in how to interpret priority setting.</td>
</tr>
<tr>
<td>2003</td>
<td>A proposal for a management system for priority setting is prepared and presented to departmental managers.</td>
<td>Key medical leaders and colleagues engage in guideline production and thereby in how to interpret priority setting.</td>
</tr>
</tbody>
</table>
7.3 Introducing priority setting to the Västerbotten County Council

Politicians in the VCC were generally optimistic about the Parliamentary decision and, in fact, preceded it by producing guidelines of their own (1992).\textsuperscript{181} The value base was similar to that of the parliament.

In 1993, my prospective tutor, health economist Lars Lindholm, and I commented on the first version of the Commission Report\textsuperscript{182} on behalf of the VCC. In a later political initiative, we created study material based on the parliamentary decision and educated future leaders of voluntary study groups.\textsuperscript{183} On behalf of the Priorities Delegation, I wrote an informational brochure for health care stakeholders (1999)\textsuperscript{184}, held nationwide seminars and also wrote a book on priority setting (2001).\textsuperscript{185} This helped connect the VCC work to national activities.

Within VCC, inspiration from New Public Management theory led to the establishment of a local purchaser-provider system (1992-2003) with a shift of political focus rather than introduction of economic incentives. Political representatives on the county council executive committee were to act as providers. Politicians in the health and medical committees were to act as purchasers.

Purchaser politicians were supposed to act as representatives of the public towards the health care system. Providers were supposed to represent the organisation. Political and administrative interest in health care resource allocation deepened. New forms for knowledge creation and decision-making were tested, including a variety of stakeholder perspectives. Major, multi-perspective investigations were performed in specific areas, eg, coronary care, obesity, stress, or psychiatric illness among the young. The investigations resulted in political reallocation decisions, knowledge growth and experience in managing multi-professional groups.\textsuperscript{186} New forms for interplay between politicians and patients or the public were also developed.

In 2001, allocation of priority setting responsibilities between politicians representing purchasers or providers was formalized with purchasers being primarily responsible for horizontal priority setting.\textsuperscript{187} Based on needs assessments in the previous investigations, horizontal reallocation was initiated for underfunded sectors highlighted by parliament. The overall evaluation of the National Action Plan that aimed at such reallocation was negative\textsuperscript{188}, but in response to

\textsuperscript{181} Västerbotten County Council (1992).
\textsuperscript{182} The Ministry of Health and Social Affairs (1993).
\textsuperscript{183} Västerbotten County Council (1995), Lundborg and Waldau (1998).
\textsuperscript{184} Waldau (ed) (1999).
\textsuperscript{185} Waldau (2001).
\textsuperscript{186} Reports can be ordered from the VCC (in Swedish).
\textsuperscript{187} Waldau (2002).
\textsuperscript{188} National Board of Health and Welfare (2005).
The Board, the VCC emphasised that the Plan added to already existing goals.\textsuperscript{189} This shift of focus and the connected educational efforts were only concerns for the political purchaser representatives (in the health and medicine committees). There was a limited impact on the political provider representatives (in the county council executive committee) and management systems. Managerial capacity to implement the resulting political decisions remained limited in terms of skills, adequate structures and a relevant knowledge base. Ultimately, this resulted in abolition of the purchaser-provider system.\textsuperscript{190}

These experiences indicated a gap in organisational culture and knowledge demands between professionals and the political/management level. An internal interview study among clinical managers (Paper I) revealed frustration and confusion about explicit priority setting.

\textbf{7.4 Interpreting the task of priority setting}

Between 2001 and 2003, the county council director launched a strategic management project with the intention of preparing and proposing a management system for priority setting. I was appointed project leader. This project included considerations of formal institutional features and organisational culture.

The existing senior medical advisors’ group was appointed project group with the intention of enhancing legitimacy among health care professionals. The members engaged in pilot activities such as evidence based medicine (EBM)\textsuperscript{191} or specification of treatment indications for hip replacement.

The project included creation of prioritisation guidelines for health care services.\textsuperscript{192} These, as well as the entire project, required a common understanding of what was expected of the organisation consequent to the parliamentary decision.\textsuperscript{193} Therefore, I put considerable effort into clarifying fundamental concepts and their practical implications.\textsuperscript{194} In so doing, I considered the different positions of the Parliament and the Board. If implementation as recommended by parliament was expected to result in compensatory resource allocation towards the underprivileged in the health care system, it would constitute a social project. Such a project would mainly be about stakeholder relations and power over horizontal resource alloca-

\textsuperscript{189} While on national level resources directed towards primary care were raised by 3.8 percent between 2002 and 2003, in the VCC they were raised 14 percent. While primary care resources were reduced by 0.4 percent relative to other health care sectors on the national level, in VCC they were raised 1.5 percent.

\textsuperscript{190} Anell (2005, abstract) points to many county council experimenting with purchaser-provider splits; “but traditional hierarchical management soon replaced the new incentives”.

\textsuperscript{191} Building robust systems for EBM management was considered one of several requirements for priority setting management.

\textsuperscript{192} Västerbotten County Council (2003).

\textsuperscript{193} Among other forms for communication, lengthy reasoning about priority setting was incorporated in the VCC’s yearly plans.

\textsuperscript{194} The evidence for this position was later found in policy analysis and implementation literature (Greenhalgh and others, 2004). At the time, the position expressed intuitive experience.
tion. Values would be at the centre and politicians would be the main stakeholders. On the other hand, if implementation was about creating a “correct priority setting process...characterised by transparency and accountability”\(^{195}\), as suggested by the Board, legitimacy would be based on arguments deemed acceptable primarily to the medical profession. Politicians would be secondary to the medical profession and assumed to make their decisions on clinical evidence rather than on value-based grounds. If responsibility for priority setting was to be shared between different stakeholders\(^{196}\), there should be a strategy for implementation appropriate for all of these. Thus, the two approaches should and could be combined. To illustrate this objective, I created a brief description of expected benefits of priority setting for stakeholders. I used it for didactic purposes (Figure 4).\(^{197}\)

<table>
<thead>
<tr>
<th>Stakeholder perspective</th>
<th>What?</th>
<th>How?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Politicians responsible for finance and services</td>
<td>Improved effectiveness</td>
<td>By effective resource use founded on the ethical template</td>
</tr>
<tr>
<td>Staff; Health care professionals</td>
<td>Improved psychosocial work environment</td>
<td>By reduced frustration through clarification of commitment and consensus on clinical practice</td>
</tr>
<tr>
<td>Patients; The public; Politicians as representatives of the public</td>
<td>Improved equity/de-mocracy</td>
<td>By securing equality of care and creating ethically defensible systems for rationing</td>
</tr>
</tbody>
</table>

**Figure 4.** “The benefits of my priority setting work”\(^{198}\)

Priority setting was defined as decision-making on all health care resource allocation and based on the ethical template. The aim was defined as to “create a cost-effective and ethically defensible health care within budget limits and based on needs. Priority decisions and arguments should be public.”\(^{199}\) The practical implications were expressed in the guidelines as:

1. Re-balance resource allocation according to the messages of the Commission Report and parliament, ie, prioritise health care for chronically ill or psychiatric patients and terminal care;
2. Improve cost-effectiveness by help of EBM and quality improvement techniques;
3. Develop legitimate limits to public health care by creating feasible and ethically acceptable systems for rationing.\(^{200}\)

\(^{195}\) Holm (1998), p 1001.

\(^{196}\) This message was stated by the Commission (1995) and parliament (1997), repeated by the Board (1999) and the Delegation (Ministry of Health, 2001a), and expressed in the Prioritisation Centre’s activities (see Prioritisation Centre reports for documentation. Available at http://www.imh.liu.se/halso-och-sjukvardsanaly/s prioriteringscentrum?l=sv/).

\(^{197}\) The figure is a slight revision of the one on p 5 in Västerbotten County Council (2003).

\(^{198}\) I owe the idea of illustrating the benefits for different stakeholders to Britt Nordlander MD of the Swedish Medical Society.

\(^{199}\) The aim was developed and refined over time and therefore expressed by different wordings in strategic plans, directives and other documents.

\(^{200}\) Based on Västerbotten County Council (2003) p 12.
On ethical grounds, improving cost-effectiveness within given budget limits was considered a prerequisite for legitimacy of future decisions that would deny or limit patient access to health care services, and therefore was necessary prior to rationing.\footnote{This connection of priority setting to improving cost-effectiveness was also intended to prevent competition within the organisation between priority setting and quality improvement as dominant management strategies.} For such work to be part of priority setting, freed resources should be used for underfunded care mentioned in parliamentary priority group 1b. This standpoint was considered controversial within the Swedish priority setting discourse. Support was found in Martin and Singer (2001), who claim that for controversial rationing decisions to be deemed legitimate, efforts to improve value for money within the given budget were conditional. In VCC, this stance was considered conditional for legitimacy in the eyes of any stakeholder.

Consequently, the practical task was understood to be comprehensive and included: horizontal allocation of resources according to the parliamentary priority groups (Box 1); vertical departmental level priority setting; defining criteria for treatment as a basis for limits to care; structured quality improvement; practicing EBM; and work on ethics. See Figure 5 for details on the content of these priority setting domains.

This operationalisation served as a starting point. As part of the project, priority setting systems at the departmental level were assessed with a survey. Implementation levels were shown to be low by response levels and descriptions of-factual structures, process or decision-making for priority setting. The survey was repeated two years later at the end of the project (initial interviews and the surveys are presented in Paper 1).
<table>
<thead>
<tr>
<th><strong>Domain</strong></th>
<th><strong>Practical application</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall unit resource allocation in relation to the parliamentary priority groups model* (macro level)</td>
<td>Overall analysis of patient group volumes and resource allocation on the unit level in relation to the parliamentary priority groups model. Internal mapping, analysis, and comparison of reality vs ideal.</td>
</tr>
<tr>
<td>Vertical, clinical prioritisation (meso level)</td>
<td>Prioritisation founded on refined analysis of gravity vs treatment within diagnoses. Internal mapping, analysis, comparison of reality vs ideal.</td>
</tr>
<tr>
<td>Criteria for treatment (micro level)</td>
<td>Create common views and routines among clinical colleagues founded on evidence. Analysis based on diagnosis or therapy (e.g., type of radiology, specific surgery, criteria for medication). Aim: to diminish variations in treatment practice.</td>
</tr>
<tr>
<td>Clinical practice</td>
<td>Analysis of routines in a care process, often in relation to guidelines and over clinical boundaries. Cross-sectional mapping, analysis, comparison reality vs ideal.</td>
</tr>
<tr>
<td>Evidence based medicine</td>
<td>Evaluation of therapy use. Information, reflection, implementation of new recommendations, methods, therapies. Abolishment of outdated methods and technology.</td>
</tr>
<tr>
<td>Organisational improvements</td>
<td>Structured quality improvement regarding routines and work flow.</td>
</tr>
<tr>
<td>Ethics</td>
<td>Reflection, guidance, linking to routines and organisational culture.</td>
</tr>
</tbody>
</table>

**Figure 5.** Priority work components
Adapted from Paper I, Table 1.
*See Box 1.

The “Fair Procedures” or A4R framework of Daniels and Sabin, 1998, was presented in the guidelines as a norm for priority setting procedures. The priority setting requirements are described for adequate structures for building knowledge and decision-making, and change of organisational culture to one of learning.

The concept of a learning organisation was defined: “By learning is meant that the organisation, in an intention to constantly improve goal attainment and adapt to changes in the surrounding environment, should actively and strategically search for knowledge and have the capacity to learn from experience.” Behind this definition was the West Churchman (1971) concept of “inquiring systems”; the intention is that learning should occur at the organisational (not individual) level. Learning is primarily intended to improve goal attainment. Attention to changes in the outer world is essential for defining goals and strategic action. Finally, learning is about reflection, with an impact for future action rather than only about collating information.202

Local and national experiences in priority setting and structured quality improvement efforts were presented. The overall goals were: “The VCC intends to create a culture and organisation for explicit priority setting in health care. This means that all work places hold and use knowledge and decision-making systems including perspectives, knowledge, and clever and reasonable people enough for

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making reasonable priority setting decisions. Decisions should be transparent.”

This approach encouraged and presumed a widening of the relevant knowledge base compared to the one that was dominating prioritisation discourse. As expressed by Martin and Singer (2000), “philosophy, law, political science, medicine and economics” were needed for the decision-making process at all levels. However, complementary knowledge was deemed necessary for shaping institutional and organisational conditions for implementation.

As intended, the project ended with a proposal to the county council director for a priority setting management organisation. Apart from the described knowledge fields it also drew from Domain Theory and literature on systems thinking, professional service organisations, knowledge management and organisational learning, empowerment, deliberative democracy, and structured quality improvement.

The main objective of the proposal was to tie the professional domain to that of politics, and thereby make clinical resource allocation, quality, outcome and technological development externally manageable.

Management systems for priority setting require a reflexive culture, which presumes the creation of opportunities and forums for (ethical) reflection and multi-professional priority setting.

Formal proposed rules included:

- Clarification of responsibilities for priority setting among the political system, health care management and health care services.
- Clinical and dental leadership responsibilities were clarified, widened and connected to management structures.
- The intention to create decision-making processes at all levels according to the requirements of the A4R framework.
- Establishment of a specific health technology assessment procedure as part of the budget process.
- Revision and strengthening of the existing ethical advisory board to create a supportive, consultative resource for priority setting that was connected to overall management.

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203 Västerbotten County Council (2003), p 4.
204 Kouzes and Mico (1979).
208 Starrin (1997).
In 2003, a preliminary draft of the proposal was sent for comment to all clinical managers and medical leaders for comments. Thirty-two of around 200 leaders commented. Of these 32, 23 were in favour and welcomed central support for developing management of the professional dimension of health care. The following quote summarises the opponents’ criticisms: “Politicians and administrators try to increase their power over the medical systems; you can’t manage professionals; organisational learning does not exist.”

In 2004, a new strategic management body was created that was responsible for the tasks above.

Overall, the implementation approach included much more than creation of a knowledge base of ranking lists and making rationing decisions. The aim was to make priority setting (analysis, knowledge creation, decision-making as well as changes of routines, patient flows and resource allocation within budget limits) into an integrated part of organisational culture and formalise local planning and practice at all levels.

7.5 Assessing implementation level

In the early 2000s, a national audit helped direct national health care stakeholder interest to the art and technicalities of implementation. This was mainly driven by insights about the rising costs of new health care technologies and the potentials of EBM to enhance the quality, security and cost-effectiveness of care.

In 2004, Kamper Jörgensen labelled explicit priority setting a new political-administrative technology and used Rogers’ (1995) diffusion model to illustrate implementation success in Sweden. This seemingly simple proposition shifted the understanding of the VCC implementation efforts. Now policy and technology implementation theories, as well as conceptual and practical tools, appeared appropriate. Conceptual bridges between the knowledge fields of implementation, which are central to the quality improvement and EBM discourses, and priority setting were created.

Our initial interviews and evaluation surveys among clinical managers (Paper I) revealed various interpretations of the concept and mission of priority setting. These added to those of the Commission, the Parliament and the Board. Results suggested that priority setting in 2005 was a matter for early adopters, if anyone. A portion of clinical managers took on personal leadership for priority setting and demonstrated a need for more specific knowledge in health economics and other subjects related to priority setting.

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212 Västerbotten County Council internal report.
213 Swedish National Audit Office (2002).
214 In VCC, systems for EBM management were identified as strategic to priority setting management.
216 According to the terminology of Rogers (1995).
Greenhalgh and co-workers (2004) reviewed experiences of implementation efforts in health care and created a conceptual model intended for implementation considerations. The review and conceptual model are comprehensive and complex. From them I concluded that the characteristics of the innovation and its compatibility with the adopting system should be the focus. This created an opportunity for a deeper analysis and understanding of the implementation task.

The Conceptual Model was used to think about, and evaluate our implementation approach. The Greenhalgh et al review summarises the requirements for successful implementation:

- The character or meaning of the innovation should be unambiguous.
- It should be simple to use.
- It should be viewed as advantageous to actual practices.
- It should be possible to experiment on, on a limited basis.
- Benefits should be observable.
- Adopters should be able to adapt, refine or modify the innovation.
- There should be no risks involved.
- The knowledge required for innovation use should be codified and transferable.

VCC had limited experiments in priority setting and none of the other prerequisites were available.

The innovation should also be compatible with values, norms, perceived needs and ways of working. In our case, the innovation was not. Instead, the comparison generated the insight that priority setting challenged the complete health care management system. This was mainly because of the demands for specific information, not previously used for management purposes and for procedures for decision-making to be rebuilt. As systems theorists point out, a system is defined by its goal.\textsuperscript{217} The goal then defines what information is considered relevant.

8. Constructing and testing a priority setting process (2004-)

8.1 Recent managerial precedents to the intervention

There were strategic efforts within the VCC to build capacity for knowledge management in general and for priority setting specifically. During 2004, the executive manager for tertiary care instructed her departmental managers to perform priority setting. Support in the form of a working group for mutual learning among managers was organized. Several departments performed local priority setting activities that resulted in lists or other kinds of presentations.

\textsuperscript{217} West Churchman (2002), p 34.
A group of representatives for different primary care system agents (eg, managers, general practitioners, health care counsellors) was organized to deal with prioritisation matters. For example, the group analysed patterns of care consumption in relation to prioritisation guidelines to limit use of high-volume and low-priority interventions by assuring evidence based practice.

A research intervention on resource prioritisation for treatment of infertility was performed within the obstetrics and gynaecologic departmental budget process of 2005.\textsuperscript{218} In that case, priority setting and structured quality improvement were combined. The intervention resulted in reallocation of resources from diagnostics to interventions, and among patient subgroups through clarifying and limiting treatment criteria. This action research intervention confirmed the hypothesised value of combining knowledge and methodologies of priority setting with those of quality improvement techniques.

Through a central management initiative, all departmental managers were offered education on EBM. How to construct departmental management systems that control the implementation of health technologies financially or by priority was also on the executive management agenda.

Within a regional framework of four Northern county councils, organisational forms were developing for analysis of the potential impact of national guidelines on existing clinical practice, organisation and finance.\textsuperscript{219} Clinical representatives from VCC participated in production of the Board’s national guidelines. In this way, more clinical representatives and management were familiarized with the priority setting discourse and methodologies.

Against a background of expected demographic and economic challenges and by political initiative during 2007, the county council organisation was subject to a thorough analysis that touched on financial and structural situations and organisational culture. One of the subsequent decisions was to make priority setting one of several strategies to reach financial targets. In the strategic plan for 2008-2010, politicians decided on development of a model or process for priority setting. During the spring of 2008, the politicians decided to perform priority setting. Thus deciding on procedures for priority setting was turned into an issue for central management.

**8.2 Process, methodology and organisation**

The priority setting process was to engage politicians, professionals and management and include forums for discussions between these stakeholders. The priority setting methodology was only used to create resources for funding of investments, not for cutting costs. Proposals for investments should be based on epi-


demiologic, demographic and health technology development and correspond to 1.5 percent of the county council budget each year (SEK 90M or US$12.5M). The process result should cover the requirements for two fiscal years, i.e., 3 percent of the two-year budget. Before the process, a list of high priority investments had been collated. After management revision, the value of the list corresponded to the requested amount. The list thus served as an economic goal for the priority setting process, but no political decision had been made.

8.2.1 Disinvestment process and methodology

The overall features of the priority setting process are presented in Paper III. The main goal of the process was to free resources by disinvesting in (closing down or limiting) activities or treatments of low priority. The process was to build on existing but not implemented research plans.

It was thought that health care representatives would not accept that areas such as administration or housing did not contribute to the funding base for new investments. Therefore the entire organisation was included in the process in order to enhance legitimacy. The Prioritisation Centre recommended that the Prioritisation Model\(^{220}\) be used as a standard device for analysis, with minor revisions for departments other than health care.\(^{221}\)

In addition, we intended to build a knowledge base with the help of professional judgements. Another hope was to satisfy a wish among departmental managers to address perceived financial inequalities between departments. The managers had objected to rationalisation tasks with percentages that were similar across departments and thought that this would result in “unfair” consequences.

The process consisted of three stages: 1) vertical priority setting performed at the departmental level; 2) intra-departmental, horizontal priority setting performed by departmental representatives; and 3) a forum meeting for giving the knowledge base to the politicians with eventual political decision-making on both disinvestments and investments. The stated intentions and details of the procedures for each stage of the disinvestment process are presented in Paper IV.

During the first stage, each departmental manager was to identify proposals corresponding to 10 percent of the net budgets.\(^{222}\) This was intended to cover reallocations between departments and declines among proposals due to quality flaws or because they were not judged to be politically feasible. The initial identification of actual activities for disinvestment therefore had to include more than would ultimately be needed.

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\(^{220}\) Carlsson and others (2007)

\(^{221}\) The Model speaks about health condition and needs. This is inappropriate for areas such as housing and logistics. Also, evidence for effect or cost-effectiveness is not relevant in such situations.

\(^{222}\) Budgets after reduction of revenues or costs due to care outside the county or care for citizens external to Västerbotten.
The main purposes of stage 2 were to: a) perform a quality revision of the proposals from stage 1; b) address the question of suboptimal resource allocation among departments; and c) level out differences in the foundations of ranking between departments. It was hypothesized that representatives from different departments would not always agree on how to rank the value of an activity or condition/treatment pair. Also, we hoped to reduce complexity and diminish the number of proposals needed to cover 4 percent of the net budget.

Stage 2 was performed by groups, each consisting of nine participants and representing different services from a county perspective and illustrating the total range of responsibilities of the county council. Based on former experiences of multi-professional organisations for knowledge creation223, this was intended to enhance systems understanding among participants and, through mutual sharing of perspectives, to counteract clinical prestige as the major impact on political decision-making. In all, ten groups were formed and included 90 departmental representatives. Each group worked for three days under external leadership and with administrative support.

Stage 3 included presentation of the knowledge base by professionals to the political management and also political decision-making. Our Prioritisation Forum was to share information between stakeholders. Its main purpose was to give politicians an opportunity to understand and question the knowledge base which was, based on professional judgement. The politicians decided not to use it for political debate.

The politicians set a strict time frame. The process was to start in June and a political reallocation decision was due in November 2008 for implementation through the 2009-2010 budget. Because of the short time available, the procedures were elaborated and refined during the process.

8.2.2 The investment procedure

An overall idea of the investment procedure was to create a form for “ordered implementation” of health technology inventions. As noted in section 6.4.2 this constitutes a goal for the knowledge management movement. In this case, “ordered” was understood as regular decision-making processes where all investments proposals that exceeded departmental budget limits were compared and prioritized according to appropriateness and cost-effectiveness. Thus, the list of high priority items was composed of:

1. All high priority investments emanating from recent national guidelines for care;
2. All new, costly therapies having passed a Mini Health Technology Assessment224 and an internal advisory board of senior physicians;
3. All political proposals for actual funding.

223 Investigations during the purchaser/provider era or for reviewing the impact of national guidelines, as presented in sections 7.3 and 8.1.

224 Danish Centre for Evaluation and Health Technology Assessment (DACEHTA) (2005).
Prior to the prioritisation process, the list amounted to SEK180M or 3 percent of the net budget. During the process, participants criticised the list for lack of transparency. Therefore, executive managers were invited to present other proposals and items were added until the list amounted to SEK329M or 5.5 percent.

8.2.3 Information and communication

Resource allocation decisions have to be perceived legitimate by stakeholders in order to be implemented and supported. Therefore, emphasis was put on internal and external communication during the process. Goals were formulated with the intention of creating knowledge and understanding within and outside the organisation about the motives for the priority setting process.

Basic messages were stated early and efforts were made to make internal stakeholders deliver similar messages. Internal and external media were used for information. Initiatives towards the media were taken so that the organisation could set the agenda.

8.2.4 The process organisation

For the process, a political steering group consisted of leading politicians from all parties. A smaller group for internal and external communications issues was also formed and consisted of two administrators and five politicians who represented the majority and the minority.

The executive management group administered the process. The vice county council director was responsible for coordination. He appointed an operative process management group of representatives from strategic bodies such as finance, staff, strategic development and information. Thus, process responsibilities were placed at top management level.

To support departmental managers in priority setting during stage 1, twenty consultants with practical experience in priority setting or evidence based medicine were recruited internally and trained by the Prioritisation Centre. Controllers helped departmental managers add data on volume and costs for each identified prioritization object.

To manage the intra-departmental groups during stage 2, ten senior leaders were recruited. They were mainly from other county councils. Former practical experiences in priority setting served as a basis for recruitment in this case. Administrative support to all groups was recruited internally.

An internal reference group consisting of senior physicians with prior knowledge in priority setting provided advice on methodological issues and the evaluation programme. Such a programme was organized in consultation with the Prioritisation Centre. Each process stage was followed by surveys to participants.

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225 The group consisted of senior physicians/researchers and was originally intended to perform a research project on horizontal priority setting. This was based on the ideas that later served as a basis for the prioritisation process.
The Prioritisation Centre also performed interviews and an observational study during stage 2.\textsuperscript{226} Eventually, the process was appraised with a gender perspective.\textsuperscript{227}

8.2.5 The resulting decision as presented by the VCC

The content of the concluding political reallocation decision was presented in public protocols, in the media and on the VCC web site.\textsuperscript{228} Disinvestments regarded:

1. Interventions directed towards healthy persons (certain attestations, impairment aids, medical products and interventions);
2. Diminishing revisits and medical controls;
3. Reducing primary care or emergency unit doctor visits for minor ailments;
   and,
4. Adherence to existing common guidelines regarding pharmaceuticals or diagnostics.

The decision clarified the limits of the county council services to residents. Disinvested interventions were either not offered by the VCC or offered for full cost recovery.

Investments were made in habilitation, primary care (prevention and interventions regarding the young, severe chronic diseases or psychiatry), tertiary care (eg, cancer pain, coronary care interventions or new costly pharmaceuticals) laboratory methods and IT, and securing overall long-term competence in the organisation.

Official political and executive management conclusions were that the results corresponded to the parlimental ethical template. Arguments were that investing in care for the severely sick and those suffering from reduced autonomy would correspond to the principle of human dignity; creating funding with the help of those less ill standing asode would correspond to the principle of needs and solidarity, and reallocating funding from less to more cost-effective care would correspond to the principle of cost-effectiveness.

\textsuperscript{226} Broqvist and others (2009).
\textsuperscript{227} Waldau and Osika (2009). Performed with financial support from The SALAR.
\textsuperscript{228} The Västerbotten County Council Executive Committee (2008).
9. Presentation of included Papers

The included Papers describe disparate investigations or interventions performed in VCC, from 1998 through 2008 as part of the implementation efforts described in chapters 7 and 8. Aims are presented in Chapter 1. Different methods and knowledge bases were used for each research effort and presented here. Likewise, main results are summarized here.

9.1 Paper I: Local prioritisation work in health care – Assessment of an implementation process

9.1.1 Material and methods

Interviews with clinical managers (1998) and two surveys (2002 and 2005) among clinical managers and leaders were performed and analysed. The results were internally compared.

Interviews

Interviews with six clinical managers were performed to explore the practical prioritisation process at the clinical level. The clinics were strategically chosen to represent diversity in different dimensions. Interviews were semi-structured and each interview took about an hour. Preliminary drafts were sent to the respondents and revised after their comments.

Surveys

In late 2002 and early 2005, electronic surveys were conducted among departments. An operationalisation of the parliamentary priority setting decision (Figure 5) was performed. This served as a basis for the construction of surveys. The surveys were designed to assess the existence of structures, processes and results regarding explicit, unit-level priority setting. Because of the results of the first survey, domains were slightly revised in the second.

An analysis of strengths, weaknesses, options and threats (SWOT) was requested for the role as a leader of local priority setting work. There was also space for personal comments and a request for local prioritisation programmes, if any.

Survey 1 (2002)

The target group was composed of clinical managers (N=86) and senior physicians (N=105) who represented 92 units. An introductory letter provided information about the survey purpose and the on-going prioritisation project. The concept of prioritisation was clarified with in a table. Requested response time was 14 days and one reminder was sent.

Survey 2 (2005)

The target group was composed of clinical managers (N= 105) and the newly defined role of clinical leaders (N=103). The target group covered 113 units. Re-
quested response time was three weeks. The survey was stated to be on behalf of the county council management. No reminder was sent out because we did not want to disturb the natural pattern of interest among respondents.

9.1.2 Main results

For the surveys in 2002 and 2005, the unit level response rates were 52% and 32% respectively, and varied between types of care. Based on the survey response rates and knowledge about respondents, we concluded that the results reflected the position of early adopters as described by Rogers (1995). Though discrete, results were interpreted to indicate the following growth among this group:

a) Towards assuming prioritisation work as a personal leadership task rather than placing responsibility on politicians;

b) From general towards specific comments; and

c) From general knowledge about prioritisation towards local experiences in prioritisation.

Different interpretations of the concept of prioritisation were found. A tentative model was created that expressed the characteristics and practical implications represented by each of these. (Figure 7).

<table>
<thead>
<tr>
<th>Prioritisation concept definition</th>
<th>Hidden prioritisation</th>
<th>Knowledge about open prioritisation</th>
<th>Knowledge in open prioritisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical prioritisation of adequate care for individuals</td>
<td>Prioritisation = rationing</td>
<td>Prioritisation = ethically founded resource allocation within health care, open to the public</td>
<td></td>
</tr>
<tr>
<td>Individual physician</td>
<td>Societal and health care systems level</td>
<td>All levels; Societal, health care systems level, Unit macro, meso and micro levels</td>
<td></td>
</tr>
<tr>
<td>Professionals</td>
<td>Politicians, high level health care management</td>
<td>Politicians, professionals, administrators, patients, public</td>
<td></td>
</tr>
<tr>
<td>Informal</td>
<td>Political, administrative</td>
<td>Local forums for organisational learning</td>
<td></td>
</tr>
<tr>
<td>Individual, professional decision-making, informal professional network consensus</td>
<td>Political decision-making process at health care systems level (horizontal)</td>
<td>Local processes for prioritisation on departmental macro, meso and micro levels. Political and administrative processes for horizontal prioritisation on societal and health care systems levels. Procedures meeting the A4R criteria.</td>
<td></td>
</tr>
<tr>
<td>Clinical</td>
<td>External</td>
<td>Accepting personal, local unit and professional responsibility</td>
<td></td>
</tr>
<tr>
<td>Individual experience, EBM. Local organisational culture</td>
<td>Political and managerial knowledge about health care resource use</td>
<td>Epidemiology, EBM, health economics, clinical guidelines, outcome results, ethics, quality management, democratic deliberation</td>
<td></td>
</tr>
</tbody>
</table>

Figure 7. Characteristics of different positions towards health care prioritisation among professionals.

Source: Waldau (2007), Figure 1. Language slightly revised.
9.2 Paper II: Ethically acceptable prioritisation of childless couples and treatment rationing: “Accountability for reasonableness”

9.2.1 Material and methods

For the intervention, an action research approach was used. The A4R framework\(^{229}\) was used to frame the priority setting procedures and for comparison of the process and outcome. The logic of the Prioritisation Model\(^{230}\) was used for prioritisation analysis. The intervention was performed in accordance with structured quality improvement theory. Teams were used to come up with ideas to improve performance.\(^{231}\) Each team worked for approximately one hour. Preliminary results were collated and consensus was reached through discussions.

Besides the given budget, the following knowledge base was used: existing treatment criteria regarding medical state; age; childlessness and life style factors; incidence data for different patient groups; costs for different levels of treatment intensity; evidence regarding FSH-activity\(^{232}\); BMI\(^{233}\); and new recommendations by the obstetrics and gynaecology departments in the Southern Health Care Region of Sweden.

The political structure and decision-making process constituted the framework for the case.

9.2.2 Main results

Results of the intervention were as follows:

- The traditional diagnostic procedures were reduced and made less invasive. This resulted in a substantial reduction in the number of physical examinations among infertile couples. Thus diagnostic resources could be reallocated to treatment.
- Criteria were created for prioritisation of conditions, such as BMI levels, FSH activity, infertility duration, childlessness and age limits.
- Treatments were rationed through an agreement on a maximum treatment level (Figure 8).

Priority setting procedures were judged to meet the standards of the A4R framework. An agreement on the proposal was reached among professionals, the patients’ organisation representatives and politicians in the Northern Health Care region. The proposal, therefore, obtained external and internal legitimacy.

\(^{229}\) Daniels and Sabin (1998), Daniels (2000).
\(^{230}\) Carlsson and others (2007).
\(^{231}\) Teams were composed by professionals representing relevant perspectives. See Plsek (1999) for details of the methodology.
\(^{232}\) FSH: Follicle Stimulating Hormone.
\(^{233}\) BMI: Body Mass Index.
Some conclusions were also drawn from the priority setting process:

The A4R framework served well for framing of the intervention process.

The intervention showed compatibility between theories and methods for structured quality improvement and for practical, clinical prioritisation work. In practice, overall results emanated from a combination of both. Thus, the result affirmed the strategic approach for implementation chosen in the VCC.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Limit</th>
<th>Evidence and reasoning</th>
<th>Guiding principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>Woman &lt; 37</td>
<td>Treatment outcome worsening with age. Closer to natural fertility limit at higher age.</td>
<td>Cost-effectiveness combined with a normal-deviant scale.</td>
</tr>
<tr>
<td></td>
<td>Man &lt; 55</td>
<td>Parenthood responsibility for under-age children.</td>
<td>Social criterion.</td>
</tr>
<tr>
<td></td>
<td>Man and woman &gt; 24</td>
<td>Partnership duration and stability is lower at younger ages. Infertility duration is shorter and time for spontaneous pregnancy is longer.</td>
<td>Medical, social and culture-specific criterion.</td>
</tr>
<tr>
<td>BMI (kg/m2)</td>
<td>&lt;30</td>
<td>Medical outcomes at higher BMIs are lower pregnancy rates. Higher risk of miscarriage among the pregnant. Higher risk of complications for mother and child during late pregnancy and at birth. BMI is to some extent manageable and an individual responsibility.</td>
<td>Medical outcome, utility/risk, cost-effectiveness, personal responsibility.</td>
</tr>
<tr>
<td>FSH (mU/L)</td>
<td>&lt;10</td>
<td>Medical results are lower at higher FSH levels where stimulation is more difficult and expensive.</td>
<td>Cost-effectiveness</td>
</tr>
<tr>
<td>Treatment expectancy at infertility unexplained after investigation</td>
<td>Women &lt;32 years; expectancy at least 3 years</td>
<td>Younger women have a better chance of natural conception (evidence points to 40% within 3 years)</td>
<td>Cost-effectiveness</td>
</tr>
<tr>
<td></td>
<td>Women &gt; 32 years; expectancy at least 2 years</td>
<td>Chances of natural conception diminish with age</td>
<td>Cost-effectiveness</td>
</tr>
<tr>
<td>Childlessness</td>
<td>One of the partners is childless</td>
<td>Couples or partners without parenthood experience are prioritised.</td>
<td>Solidarity</td>
</tr>
<tr>
<td>Treatment limits</td>
<td>1 (and 1 with a frozen embryo if needed and possible)</td>
<td>Some treatment for each person is considered better than all treatments for a few.</td>
<td>Needs/solidarity</td>
</tr>
</tbody>
</table>

**Figure 8.** Criteria, limits, evidence/reasoning and guiding principles behind prioritisation and rationing of *in vitro* fertilization procedures.

Source: Lindström and Waldau (2008), Table 1.

The quality standards of the Prioritisation Model were considered to be set too high for local prioritisation processes. Therefore, it was concluded that rules of thumb should be developed for that purpose.
9.3 Paper III: Priority setting in practice: Participants’ opinions on vertical and horizontal priority setting for reallocation

9.3.1 Materials and methods

For Paper III, an action research approach was chosen to compose a conceptual model, process for priority setting, and participating in process leadership. That is, besides organising and performing the research, Susanne Waldauf had primary responsibility for the construction of the model and she participated in process management. Her co-author, Lars Lindholm, was as methods consultant and a process leader during stage 2.

The process was subject to a full-format test. Research material consisted of knowledge about the process and results of three surveys that collated participants’ opinions and experiences.234 Surveys were created during the process and sent to participants by email after completion of each process stage (Figure 6).

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Process stage</td>
<td>Vertical priority setting</td>
<td>Horizontal priority setting</td>
<td>Priority setting forum and political bargaining</td>
<td>Political decisions</td>
<td>Start of implementation</td>
</tr>
<tr>
<td>Survey time frame</td>
<td>Sept 23–Oct 1</td>
<td>Oct 13–Oct 27</td>
<td>--</td>
<td>Dec 12–Feb 20</td>
<td></td>
</tr>
<tr>
<td>Survey number</td>
<td>Survey 1</td>
<td>Survey 2</td>
<td>--</td>
<td>Survey 3</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 6.** Survey time frames in relation to the priority setting process in Västerbotten County Council, 2008

Internal and external validity was tested by an internal reference group and persons not engaged in the process. Surveys were computer-based and answers were anonymous. All surveys included closed and open questions. They contained background questions about gender, age, employment area, organisational position and education. Closed questions were either propositions or regarded knowledge or attitudes. Answers were mandatory. In most cases, one of four positions from very positive to very negative could be chosen with the additional option of “no opinion”. The space for comments was unlimited.

Surveys 1 and 2 were each open to respondents for approximately two weeks. The intention was to separate experiences from the different process stages. One email reminder was sent for surveys 1 and 2; two reminders were sent for survey 3.

Quantitative data were summarized in Excel. Only descriptive analyses were done. Because target groups changed between surveys, no longitudinal comparisons were made.

Comments were analysed using qualitative description techniques according to Sandelowski (2000). All comments were coded and categorized independently by two researchers and the results were compared and discussed until consensus was reached.

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234 They were not intended to cover outcomes of the process in terms of economy, health utility, or implementation.
Qualitative results were condensed to improvement proposals. They emanated from all respondents. This was because of an intention to create a knowledge base for organisational learning based on all expressed participant experiences irrespective of response level of each target group or portion of participants stating a specific proposal.

9.3.2 Main results

The total target group for survey 1 was 225 individuals: 95 departmental managers, 9 staff managers, and 121 medical leaders. Response rates were 78% (n=74), 122% (n=11)\textsuperscript{235}, and 28% (n=34)\textsuperscript{236} respectively. While the departmental manager response level was one of the highest ever achieved on an internal survey, the two latter target groups were excluded from the quantitative analysis. All qualitative comments were analysed and used.

The target group for survey 2 was participants in horizontal priority setting groups (N=91). Of these 12 individuals were not included in the target groups of survey 1. The total response rate was 82% (n=75).

The target group for survey 3 consisted of key participants in stages 1-3 (N=166); ie, departmental managers, staff managers, other stage 2 participants, politicians and executive managers.\textsuperscript{237} The total response rate was 64% (n=106).

A majority of departmental managers thought the actual procedure for vertical priority setting (survey 1) was “rather appropriate” (53%) or very appropriate (16%). Almost all would have some future use of the prioritisation methodology and results.

Regarding horizontal priority setting (survey 2), the majority (71%) of participants was “very positive” towards horizontal priority setting in general. Forty percent were “very”, and another 45% “rather” positive towards their own participation in such a procedure. The composition of groups\textsuperscript{238} was considered “rather relevant” to 59% and “very relevant” by another 15%. Discussions were characterized as having reciprocal respect by 97% of participants. Eighty-five percent thought they had “very much” respect. In addition, 93% of respondents thought discussions were characterized by openness and 66% thought they did so “very much”. Also, stage 2 resulted in new insights about other departments among all respondents and were characterized as “to a large extent” among 27% and “to a rather large extent” among another 48% of respondents.

In retrospect (survey 3), respondents thought the overall disinvestment procedure was “totally” (37%) or “rather” (53%) appropriate. However, 37% thought

\textsuperscript{235} Some respondents apparently mislabelled themselves as staff managers. Respondents were free to choose among alternatives.

\textsuperscript{236} Despite this drop-off among clinicians, doctors constituted 48% of respondents to all surveys compared to 11% in the overall county council staff.

\textsuperscript{237} Due to the low response rate in survey 1, medical leaders were excluded from the target group of survey 3.

\textsuperscript{238} Each group was composed to reflect the responsibility range of the county council.
the investment procedure was “not at all” appropriate and another 35% thought it was “somewhat” appropriate. Of respondents, 75% responded “yes” when asked whether the priority setting procedure as a whole should be used again.

Among respondents, 34% thought the decisions were feasible “on the whole” and another 53% thought they were “partly” so. The decisions were considered to be “completely” acceptable among colleagues by 32% and “somewhat” so by another 64%. Regarding acceptability among patients/clients and voters, opinions were 9% and 80% respectively.

The overall response levels, the quantitative results, and the richness of the comments were interpreted as indicating that participants appreciated the overall approach and methodology and wished to engage in their improvement.

Participant comments and criticisms were condensed into improvement proposals and summarized. Among the main proposals were: prolongation of the process in order to improve the quality of the knowledge base; enforcing participation of all departments; extension of priority setting to cover all departmental activities as well as other dimensions such as gender, ethnicity and disability. A revision of the procedures for prioritizing medical services was requested.

As reflected in the quantitative results, a majority thought that the investment procedure should be revised. Participants proposed that the procedure should be integrated into the ordinary system for planning and follow-up.

Estimations dominated the knowledge base. This distressed participants and many lamented about having to turn in material they considered to be of low quality. This in turn caused worries about the quality of the final results. Despite this, overall attitudes to the total process outcome were positive. On that basis, it was suggested that the innate knowledge of the overall organisation, ie, “the organisational intuition”, about high and low priority among services is good enough for (explicit) priority setting at an “everyday and everyone” level.

Interdepartmental and systems learning were expected to occur in horizontal priority setting but the depth of the learning was unprecedented. This was considered an important bonus outcome of the process.

Policy level conclusions were that the process was successful in that it fulfilled political goals. Priority setting was performed within and between departments by all stakeholders. The process was participatory, characterized by stakeholder groups and individual participants taking on responsibility. It served as the intended learning process and the resulting decisions and arguments were made public; ie, the A4R conditions were met.

9.4 Paper IV: Results of a full-format priority setting process: evaluating procedures

For Paper IV, the research built on a knowledge base produced during the priority setting process, and an internal follow-up on implementation of prioritisation decisions and the subsequent economic effects. The authors’ roles in the process permitted full access to all relevant documents.
The specific intentions of the methodology used for the disinvestment procedure, performed within the priority setting process, were presented. The procedure was then compared to a resembling macro level intervention performed by the established PBMA\textsuperscript{239} approach.\textsuperscript{240} Also, a comparison by Garpenby and colleagues (2010) to a process inspired by the VCC and performed in the County Council of Kronoberg, Sweden, was used for reflections.

To test whether departmental priority setting occurred during stage 1, the following assessments were done: a) for each department, the annual operating costs of the identified objects were compared to the sum intended to be identified; and, b) the portions of objects of different ranks were computed.

To test whether intra-departmental priority setting occurred, the annual operating costs of disinvestment decisions for each department were compared to the departmental net budget. The net result of disinvestment and investment decisions was compared to net budgets. Differences in net results between departments were interpreted to indicate that reallocation occurred.

Results of the organisational internal follow-up on implementation and economic effects were revised for quality.

To test the internal consistency of the disinvestment process, all prioritisation objects from stage 1 were identified and given an identification number. Those that were later subject to disinvestment considerations or decisions were identified and put aside. Distributions of ranks among prioritisation objects were computed for all disinvestment lists. Ranks distributions were then compared for the different process stages.

9.4.2 Main results

Results in comparison to stated intentions

Despite initial difficulties and methodological complaints, all but one department performed departmental priority setting. Relative contributions to disinvestments proposals varied between departments after stage 2. The methodology thus served to address the problem of uneven allocation. In the final decisions, all departments were subject to budget reductions; ie, each contributed to the funding of new technologies. However, both disinvestments and investments were unevenly distributed among departments. Reallocation was both vertical between objects of high and low priority within departments and within the county council as a whole and horizontal between departments. This was an intended result of the process.

Participants judged objects chosen for disinvestment to be of lower priority than those that remained funded. Thus, the disinvestment process was internally consistent. However, economic targets were not fully reached. Instead of 3\%, 2.2\% of county council net resources were reallocated.

\textsuperscript{239} PBMA = Programme Budget Marginal Analysis.

\textsuperscript{240} Mitton and others (2003), Mitton and Donaldson (2004).
Procedures in comparison to PBMA, Canada

PBMA was developed for use in similar situations; ie, where funds for investments are sought within existing budget limits and freed with the help of structured procedures.

Figure 9 summarizes the result of the comparison. Many similarities as well as some important differences were conveyed. Similarities were present in the marginal analysis approach, the structured processes and the desire to include relevant stakeholders. The main differences were in the use of a common value base and a common instrument for ranking of alternatives, the inclusion or exclusion of technical efficiency considerations, and how and at what level horizontal priority setting was performed.

The VCC process used the line organisation and departments (portfolios) as starting points for the analysis, and included rearrangement of the knowledge base to cover specialities or similar departments. In contrast, the PBMA/MMA approaches started by identifying (or framing) “programmes” or “portfolios” and compiling relevant budgets by mapping current activities and expenditures.

The analytical levels chosen for identifying disinvestment objects were also different. In the Prioritisation Model (Figure 1), the prioritisation object is a condition/treatment pair, ie, applying a micro (patient/subgroup) or meso (patient group) perspective. Mitton and colleagues describe objects as programmes/portfolios rather than patients/subgroups.

Horizontal (intra-departmental) marginal analyses were performed in both cases but a different approach was used for each. In VCC, there was a professional peer-review exercise involving almost a hundred representatives of the entire organisation and performed on a meso level. Mitton and others (2003) note “a lack of a single, common metric with which to make service valuations across disparate patient groups”. In our case, the Model was used for that purpose. As noted, the instrument reflects a common value base for priority setting.

Mitton and Donaldson’s (2003) description of the MMA intervention is that of an executive management exercise performed by an additional advisory board. In VCC, participation was substantially broader and deeper than the one recommended for PBMA. Surveys alone were mailed to more than 250 key individuals, who were likely to participate in the process.

Mitton and Donaldson (2003) stress the importance of public representation. In VCC, regional politicians represented the public and further public representation was not part of the agenda.

In PBMA, improving technical efficiency is described as primary to setting limits for services. In VCC, the process was explicitly confined to rationing or limiting services. This approach was also reinforced by the Model, which focuses on the priority of specific interventions in situations characterized by a choice between alternatives.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>PBMA/MMA*</th>
<th>VCC approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of analysis</strong></td>
<td>Portfolios or programmes of care</td>
<td>Micro or group level</td>
</tr>
<tr>
<td><strong>Disinvestment analysis perspective</strong></td>
<td>Compilation of programmes during the initial part of the process; i.e., identification of present budgets for processes of care or programmes (ideally, e.g., “cancer care in the catchment area”)</td>
<td>Departmental budgets are starting point for stage 1 analysis, e.g., covering “tertiary level cancer care at a specific hospital”. Transforming the knowledge base to cover medical specialities or levels of care at a county level perspective preceded stage 2.</td>
</tr>
<tr>
<td><strong>Technical efficiency (TE) options</strong></td>
<td>Searching for options to improve TE part of the process</td>
<td>Options to improve TE (ideally) left out of the process**</td>
</tr>
<tr>
<td><strong>Identification of objects for investment</strong></td>
<td>Part of the process</td>
<td>Preceding the process. Identified by participants as an improvement area</td>
</tr>
<tr>
<td><strong>Value base for priority setting</strong></td>
<td>Efficiency/equity at centre; other criteria developed or chosen locally</td>
<td>The parliamentary ethical template; principles of human dignity, needs/solidarity and cost-effectiveness</td>
</tr>
<tr>
<td><strong>Methodology for ranking of alternatives</strong></td>
<td>Scoring procedures specific to the process</td>
<td>Use of a national standard model for priority setting (integrating the template above), including ranking of each object on a scale of 1 (highest) to 10 (lowest). Used for departmental and intra-departmental priority setting and for substantial parts of the investment proposals.</td>
</tr>
<tr>
<td><strong>Participating stakeholders</strong></td>
<td>Departmental and executive management, physicians, appointed representatives of patients groups or the general public</td>
<td>Departmental and executive management, physicians/other professionals and politicians as representatives of the public</td>
</tr>
<tr>
<td><strong>Stakeholder roles</strong></td>
<td>“Core working group or expert panel” determines aim and scope of the process and (?) programme budget Decision-makers, Board of Directors &amp; the public contribute to decision-making criteria Advisory panel/board (“mix of clinical personnel and managers”) identifies options and makes recommendations Validity checks with additional stakeholders Decisions by Board of Directors (?) ***</td>
<td>Building of knowledge base, ranking and quality revision (stages 1 and 2) founded on clinical/practical expertise and broad representation. Decisions prepared by executive management and approved by politicians.</td>
</tr>
<tr>
<td><strong>Address intra-departmental resource allocation</strong></td>
<td>Indirectly (as a result of the macro level reallocation process), however not described as an intention</td>
<td>An explicit intention operationalised by stage 2 and influencing the disinvestment proposals</td>
</tr>
<tr>
<td><strong>Integration in usual management system</strong></td>
<td>Described as an ideal</td>
<td>An intention stated by political and executive managements</td>
</tr>
<tr>
<td><strong>Concordance to A4R (as described by authors)</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* PBMA = program budgeting and marginal analysis framework. MMA = macro-marginal analysis. [11]

** In order for health care limits to be considered legitimate, reasonable structures and processes for technical efficiency must be in place within the organisation. This overall approach to priority setting has been a part of setting health care limits for many years. Prioritisation was considered complementary to technical efficiency activities.

*** Question marks indicate our limited understanding of the PBMA process.

**Figure 9.** The PBMA/MMA framework and comparison with the VLL prioritisation process.

Reflections based on the comparison to Kronoberg

According to Garpenby and others (2010), no specific organisational bodies were created in Kronoberg. Nor was there any collegial review of propositions as were done in VCC during stage 2. Political participation, dialogue with services departments, and allocation of responsibilities were considered to have been done in more depth in VCC than in Kronoberg.

In Kronoberg, the survey response rate was low (54.8% overall). In VCC, the response rates were 78, 82 and 64%, and this was interpreted as indicating participant engagement. In both cases, participants appreciated the opportunity to discuss priority setting, to revise actual practices, and to get rid of unnecessary activities. In both places, participants thought that the time frame was too short and that the quality of the knowledge base varied.

With this background, we (Waldau and Lindholm) argued that in the VCC, the broad and deep participation and the peer revision procedures during stage 2 added to participant engagement and improvement of the process. Participant perception of final decisions as legitimate (Paper II) was concluded.241 Results and participant statements suggest that the stage 2 procedures helped reduce considerably the breadth and complexity of the knowledge base, increased systems knowledge, and improved politician trust of the knowledge base’s validity and feasibility. Stage 2 procedures thus served as a means to reduce strategic behaviour among participants.

241 Waldau, Lindholm and Wiechel (2010).
Part V. Discussion and conclusions

10. Discussion

10.1 Specific comments on included Papers

Paper I

Response rates of surveys in 2002 and 2005 were low, especially by Swedish standards. It could be argued that they were too low for conclusions to be drawn. However, if priority setting is viewed from an implementation perspective\textsuperscript{242}, response rates may be regarded as an indication of implementation success. The intention of interpreting response rate as a measure of implementation was expressed beforehand and this was the reason no reminder was sent for survey 2. The plan was to make the existing pattern of interest for the topic visible. Accordingly, responses were interpreted as reflecting the views of early adopters over time; i.e., those who had any experience or comments to offer on the subject replied to the survey. For this reason, results were used for qualitative purposes.

Fluctuation in structured quality improvement (SQI) efforts affected the overall result. Such efforts were considered part of priority setting if they were performed with the intention of reallocating resources to prioritized groups. In primary care at that time, SQI was performed with the explicit aim of reallocating resources to the elderly and severely chronically ill.

Paper I mentions the lack of existing research and methodology. The 1999 Board report built on interviews with 33 individuals. To my knowledge, no intervention similar to my study was performed in Sweden or elsewhere until 2005. Construction of a questionnaire presupposes a clarification of concepts, and also sharing of an understanding with respondents. In VCC, the need for clarification of implementation objectives and goals were repeatedly addressed. As shown in Paper II (Figure 5), the Prioritisation Centre defined core concepts such as rationing, priority setting and explicit priority setting.\textsuperscript{243} These concepts were however not applied to the actual clinical management decision-making.

In my case, the questionnaires were based on a specific operationalisation of the concept of priority setting. Because some respondents did not recognize priority setting as an activity that demands special structures or processes, there were some negative comments about this. This discrepancy between the understanding of the researcher and the respondents was expected. In this aspect, the intervention had an intended didactic function as a tool for disseminating the description of the prioritisation task parallel to assessment of the level of common understanding.

The operational definition chosen in VCC was founded on a close reading of central documents. This definition was not fully accepted among national stakeholders but they had little to offer to replace it.

\textsuperscript{242} Kamper Jörgensen (2004).

\textsuperscript{243} Liss (2002).
Paper II

For paper II, existing frameworks and tools as A4R were used for overall framing of the process, structured quality improvement techniques for organizing of improvement groups, and the Prioritisation Model for prioritisation analysis. A relevant base of evidence and other knowledge was collated beforehand. Almost all participants had used quality improvement techniques for reallocation purposes before and were familiar to priority setting. These methodological prerequisites probably added to the intervention success.

Paper III

Paper III consists of two separate parts: presentation of the prioritisation process and results of an investigation of participant attitudes and experiences. We considered it impossible to present participant attitudes without the process and unsatisfactory to present only the process. The latter was because we considered participant attitudes to be one important measure of internal legitimacy. Internal legitimacy was in turn considered a requirement for external legitimacy of both the process and its final result.

This implied some tradeoffs in the detail and breadth of the presentation. The process was unique and complicated, and in order for the reader to understand specific questions and responses, a detailed presentation of process specifics was sometimes necessary. Because the investigation was based on three surveys of different target groups and covering different stages of the process, the presentation was more complicated.

Paper IV

While the overall process was presented in Paper III, Paper IV evaluated disinvestment procedures and feasibility of decisions. Many procedural details were considered important for the different stages that we wanted to evaluate in relation to stated intentions. This was done by the help of final results of the different process stages. For example, while results in Paper III show that participants thought horizontal priority setting was both interesting and difficult, we wanted to investigate whether the specific procedures, served to address perceived economic discrepancies between departments and resulted in horizontal priority setting.

Aims for each of the procedures were formulated (if not always formally stated) beforehand. The methodology for evaluation had to be developed and included quality revision and sorting of the complex knowledge base that resulted from the process.

10.2 Evaluations compared to an external framework

The VCC evaluation programme was compared to a conceptual framework offered by Sibbald (2008) and Sibbald and others (2009). It is a tool for evaluation of priority setting processes and outcomes and describes a set of elements to be
included. Figure 10 shows the comparison. Except for positive externalities, all elements considered relevant by Sibbald and colleagues were covered by our evaluation programme.

Participant perceptions of appropriateness of procedures, quality and legitimacy of stage and overall results were collated with surveys, interviews and observational studies. The technical aspects of the procedures were evaluated separately. A gender analysis was performed on the survey results. Evaluations results were judged to be consistent.

<table>
<thead>
<tr>
<th>Elements in the Sibbald (2008) success evaluation framework</th>
<th>Elements included in the VCC results analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td></td>
</tr>
<tr>
<td>Stakeholder engagement</td>
<td>Results in Paper III</td>
</tr>
<tr>
<td>Explicit process</td>
<td>Results in Paper III</td>
</tr>
<tr>
<td>Information management</td>
<td>Indirect results in Paper III.</td>
</tr>
<tr>
<td>Consideration of context and values</td>
<td>Presented in Paper III</td>
</tr>
<tr>
<td>Revision or appeals mechanism</td>
<td>Results of internal follow-up on feasibility and economic effects in Paper IV.</td>
</tr>
<tr>
<td></td>
<td>Gender perspective, in Waldu and Osika, 2009.</td>
</tr>
<tr>
<td>Outcomes</td>
<td></td>
</tr>
<tr>
<td>Stakeholder understanding</td>
<td>Results presented in Paper III</td>
</tr>
<tr>
<td>Shifted priorities/Reallocations</td>
<td>Results presented in Paper IV</td>
</tr>
<tr>
<td>Improved decision-making quality</td>
<td>Results presented in paper III</td>
</tr>
<tr>
<td>Stakeholder acceptance and satisfaction</td>
<td>Presented in Paper III</td>
</tr>
<tr>
<td>Positive externalities</td>
<td>No separate evaluation performed.</td>
</tr>
</tbody>
</table>

**Figure 10.** Prioritisation process results elements evaluated in VCC in comparison to the Sibbald et al (2008) framework.

### 10.2.1 Evaluations results

Stakeholder engagement was high, as judged by the response rates and the richness and content of comments in the surveys, and experiences during the process. Politicians stated that explicitness was intended to characterize the result more than the process. This was intended to safeguard the process from opportunism, be it from political or professional point of view. Decisions and arguments were available for everyone through the VCC web site and through all decisions protocols being made public.

Information management was not evaluated as such.

The process organisation, procedures and stakeholder representation were all intended to match the organisational context in terms of structure, processes and

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244 See Paper III or sections 9.3.1 and 9.3.2 for details.
245 Waldau (2009).
247 See Paper IV and sections 9.4.1 and 9.4.2 for details.
248 Waldu and Osika (2009).
culture. Common values to the form of the ethical template of the parliamentary decision were used for selection, evaluation and ranking of prioritisation objects and supported by the Prioritisation Model.

Revision or appeals mechanisms were available in at least two ways. The process as such was explicitly presented as an example of a learning process; ie, experiences were to be collated systematically. For example, surveys would be used as a basis for future learning. There are also revision and appeals mechanisms inherent in political decision-making so that decisions that have unforeseen, negative consequences, or are shown to lack feasibility, can be altered. As a basis for possible revision, implementation and economic effects thereof were evaluated.

The gender analysis resulted in evidence of gender bias and served as a basis for future improvements with regard to representation. This theme will not be elaborated here.

Regarding outcomes, overall surveys results showed broad understanding and acceptance of both the actual prioritisation process and its motives, and reasonable satisfaction with the eventual political decisions.

The results evaluation in Paper IV showed that procedures (ie, the methodologies) serve their aims because vertical and horizontal priority setting was performed and reallocation occurred.

Regarding “improved decision-making quality”, many participants, while contributing with many improvement proposals, commented that the process added value to decision-making at all levels. Improvement proposals were collated for future use.

Stakeholder acceptance and satisfaction were surveyed with overall “positive” or “rather positive” results. Substantial improvements in systems’ understanding, especially among participants in stage 2, could be considered analogous to a “positive internality”. This was an unforeseen but valuable side result of the process, and internal to the organisation.

Media coverage was neutral to positive, and the overall process idea was applied immediately by other health care organisations nationwide. These could be considered positive externalities.

10.2.2 Discontent participants

While overall results in attitudes towards the process and its results were positive, there was a segment of discontent participants. As reported in Paper III, possible explanations and the ability to do non-response analysis were limited for technical reasons. There were no indications that participants who delayed in responding had different attitudes than others.

Reasons for dissatisfaction were visible in the qualitative data. One main reason was connected to quality flaws and professionals who found it awkward to

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249 As mirrored in knowledge about other departments (see section 9.3.2).
produce and contribute with a knowledge base they regarded to be of low quality. This was partly due to the strained time frame, especially during stage 1. And it was partly due to difficulty in coordinating the knowledge base between similar departments or between medical services and health care departments.

Besides strategic behaviour that caused disturbances in the process flow\(^{250}\), there was also some resistance on principled grounds. One departmental manager resisted any participation. His stance was that the prioritisation groups (Box 1) implicated that all health care for children would be of high priority and thus out of the question when discussing disinvestments. He would not accept the Model being applied to his setting. Another manager protested against having to participate in horizontal priority setting. The argument was that she lacked appropriate knowledge for judging the value of activities performed by other departments.

Furthermore, among other participants, this resistance caused demands for executive management to clarify the rules and enforce participation among all departments.

### 10.3 Building legitimacy - procedures in external comparison

In Sweden, vertical priority setting is performed within the framework of national guidelines for care and by clinical specialty groups in the South East Health Care Region and the Region of Västra Götaland. There are few examples of processes that engage an entire organisation and include horizontal priority setting.

A process that resembled that of the VCC occurred in the County Council of Kronoberg and was documented and compared by Garpenby and others (2010). Inspiration and information for the Kronoberg process was collected from the VCC. However, different solutions were chosen for structure and performance.\(^{251}\) This adaptability of the invention is considered to be favourable for implementation by Greenhalgh and co-workers (2004).

Garpenby and colleagues did not evaluate the processes or draw conclusions about what measures would best serve different aims. Instead, they pointed out that the comparison should be interpreted with caution. The explicit purpose of the VCC surveys was to serve as a basis for organisational learning and future process improvement. General patterns were regarded important, while exact percentages of participants in favour of or negative towards specific dimensions of the procedure were considered of minor interest. Because of this and the mixture of similarities and differences, comparisons at a “pattern level” would be highly appropriate. Also, as underscored in complexity science, iteration without variation is rare or non-existing, and management must be able to learn from few or even single cases (McDaniel, 1997).

\(^{250}\) As noted in Papers III and IV, some departments initially did not perform vertical ranking of objects according to directions and could therefore not participate during stage 2 group discussions. This in turn disturbed group compositions and processes.

\(^{251}\) Eg, Kronoberg did not include professions based, horizontal priority setting.
In Paper IV, the VCC procedures were also compared to PBMA performed at the macro level (MMA) in Canada.\textsuperscript{252}

10.3.1 Participation inclusiveness – working bottom-up or top-down

Holm (1998) defines the priority setting procedures described in section 4.4 as a "bottom-up system." These procedures resemble those later used for production of the Board’s national guidelines. The appropriateness of such a definition depends on the object for comparison. Compared to a top-down system, where national governments decide about limits to health care services, having medical specialists produce the knowledge base appears to be bottom-up. However, if the number and range of engaged medical specialists is limited and the work is performed at national level, then to local health care providers such a procedure still appears to be top-down.

Health care providers cannot wait for all health care professional societies to produce a national knowledge base covering all of the multi-professional, multi-complex health care systems’ services. Because of the exponential growth of knowledge and medico-technical possibilities, this is in itself a moving target. Even if the national guidelines are considered both helpful and legitimate and will eventually cover substantial parts of health care, local managers and politicians cannot base all resource allocation decisions on those. Therefore, priority setting has to be integrated into management systems, preferably at all levels of health care. For that to happen, the “players” of the organisation have to be “empowered with the help of knowledge, training and purposeful acting.”\textsuperscript{253} These considerations guided the long-term strategy as well as the prioritisation process in the VCC.

Garpenby and colleagues considered political participation, dialogue with services departments, and allocation of responsibilities to be greater in VCC than in Kronoberg. Kronoberg survey response rates were considerably lower than those of the VCC.

The authors conclude that the priority setting process in Kronoberg was political to a “very small extent”. They also state that “very quickly, the knowledge base was passed over from departments to the executive management committee, where responsibilities remained for almost all of the process.” This was not the case in VCC.

Mitton and Donaldson’s (2003) description of the MMA intervention is of an executive management exercise performed by an additional advisory board. In VCC, participation was substantially broader and deeper than the one recommended for PBMA. Surveys alone were posted to more than 250 key individuals who were likely to participate in the process.

\textsuperscript{252} Mitton, Patten, Waldner and Donaldson (2003).

\textsuperscript{253} Gibson, Marin and Singer (2005).
The response rates, the overall appreciation of the process and the richness of survey comments in VCC indicate participant engagement. This is important, if not a prerequisite, for internal legitimacy of decisions that in many cases are controversial and must be defended or explained by caregivers in their patient encounters and by politicians who are meeting voters.

10.3.2 Horizontal priority setting and legitimacy

In VCC, horizontal (intra-departmental) priority setting, performed by services representatives, was considered important and intended to serve many purposes. It was a professional peer-review exercise involving almost a hundred representatives of the entire organisation during three days for each group and performed at an organisational meso level. Judging by survey results, participants considered the methodology and the results useful for the future, and that the work had resulted in new insights about other departments.

Another aim was to satisfy a wish among departmental managers to address perceived economic inequalities between departments. This was considered beforehand to be important for the process to be perceived as internally legitimate. Support to this is offered by Greenhalgh and colleagues (2004) who coin such situations as “tension for change”. “If staff perceive that the current situation is intolerable, a potential innovation is more likely to be assimilated successfully”. In our case, survey results supported the hypothesis that because departmental managers perceived common rationalisation assignments to be unfair, they would be favourable towards experimenting with other strategies.

Horizontal marginal analysis was performed in the MMA case but as an executive management exercise performed by an additional advisory board. In Kronoberg, no explicit horizontal priority setting stage is described, but the executive management committee would likely have prepared or performed that task as part of the process.

The 2003 priority setting process in Östergötland County Council ended with political decision-making on prioritisations that affected several specialities simultaneously. To our knowledge this was not preceded by any calibration of the ranking of objects. Consensus on the foundations for ranking would reasonably be conditional to horizontal priority setting.

Mitton and others (2003) note “a lack of a single, common metric with which to make service valuations across disparate patient groups”. In our case, with the addition of a specific methodology for horizontal comparisons, the Model was used for that purpose. As noted, this instrument reflects a common value base for priority setting.

Judging by evaluation results, the horizontal priority setting procedures had the potential to serve important aims such as to counteract strategic behaviours

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254 Lindgren and others (2005).
255 See Paper IV for a detailed description.
and power differences between participants, to increase systems knowledge among participants, and also to strengthen the feasibility and validity of the knowledge base. On this basis, it seems appropriate to emphasize the value of broad participation in priority setting and of including a stage of horizontal priority setting performed by professional representatives. However, judging from qualitative comments in Paper III and in Waldau (2009), to fully counteract power differences and strategic behaviours, procedures need refinement. Further research is needed to judge how best to improve them.

10.4 Using the Model

One conclusion in Paper II was that the quality standards set by the Model were too high for use in local settings or performed by untrained participants. This was one reason why twenty methods consultants were recruited to support departmental managers in vertical priority setting in our prioritisation process. Simultaneously, representatives from the Prioritisation Centre, who initially offered knowledge support to the process, pointed out that “estimations would do” in controlling the quality of the knowledge base used for judgement, eg, of cost-effectiveness for ranking purposes.

In Paper IV, it was pointed out that despite initial difficulties and methodological complaints eventually all but one department performed vertical priority setting. This suggests that the quality revision performed during stage 2 actually served its purposes. The fact that economic targets were not fully reached could be due to other reasons than the features of the tool. In Paper III, and based on participants’ generally positive or neutral reactions to the reallocation decision, it was also suggested that “the organisational intuition” about high and low priority among services would be good enough for priority setting.

However, the term “intuition” might be too weak to describe the knowledge base composed during the process. The Model helps visualise and organise existing knowledge. It also helps assure that relevant decision criteria are used. In addition to data collected from the county councils patient records, there were data on patient volumes and costs. Estimations of the main effects and cost-effectiveness of interventions were made, especially in relation to specific subgroups of patients.

Besides supporting departmental managers, the consultants developed into a “hot group”, a strong knowledge node in support of the process, offering both methodological expertise and knowledge about actual performance to central process management. They also acted as engaged facilitators for departmental managers. Having supported and made such a competence resource visible should reasonably be counted as another “positive internality”. According to Greenhalgh and colleagues (2004) boundary spanners, or knowledgeable and respected key persons/opinion leaders, are important success factors in implementation. They help build internal legitimacy by leading peers and helping to build trust between stakeholders.
In our case, the explicit aim was to perform priority setting at the macro level and between interventions of very different character and for different purposes and target groups. In the process, a goal was to build the knowledge base by professional judgements on appropriateness and cost-effectiveness of each intervention or activity. The knowledge base was compiled by prioritisation objects identified at micro or meso level. Besides being a logical consequence of using the Prioritisation Model, this was also thought to mirror the way implementation and resource allocation is performed when done “as usual”. It was hypothesised that normally, financial and organisational capacity is created by adaptors to new innovations changing their behaviours in small steps to make room for the new. This occurs whether it is related to technical equipment or competence based techniques. In explicit prioritisation for disinvestment, all such small dislocations and reallocations were intended to be made visible and available for vertical and horizontal evaluation.

Generally in Swedish health care, decision-making at such a detailed level is made by professionals or managers. This process kind of decision-making could be interpreted as welcoming politics far beyond the administrative management level and into the professional domain. This could well be perceived as foreign to the Swedish management tradition and the established division of tasks among stakeholders.

In this situation, the reasoning was that disinvestments would be performed at a detailed level and evaluated by patients in their interactions with care givers. Thus, it was hypothesised that patients who were discontent would ask either caregivers or politicians for explanations. Politicians would then need access to the knowledge base, the arguments, and the professionally based proposal that explained why this particular disinvestment would be preferable to others. In summary, this would constitute an important basis for internal and external consistency as well as legitimacy.

10.5 Priority setting vs technical efficiency

In VCC, politicians wanted prioritisation to be complementary to the existing economic strategies such as rationalisation. Therefore, technical efficiency considerations were to be kept out of this specific analysis.

This contrasted with the overall VCC implementation strategy (Section 7.4), where it was considered a prerequisite to start by improving cost-effectiveness within given budget limits before any limiting of services. While such a stance appears uncontroversial to Martin and Singer (2001) and in the PBMA methodology, it was considered controversial within Swedish priority setting discourse.

The intervention described in Paper II combined priority setting to structured quality improvement, ie, improving technical effectiveness. We concluded that this contributed to success. The combination was due to VCC putting vast resources into a quality improvement campaign and introducing the IHI256 meth-

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256 IHI: Institute of Health Care Improvement, Boston, USA. The IHI methodology is summarized in: IHI (2004).
odology for structured quality improvement (SQI). The head of a gynaecology and obstetrics department specialised in SQI methodology, organised his department on the logic of processes of care, and performed quality improvement interventions that resulted in improved medical results within the budget limits.\textsuperscript{257, 258} The intervention was performed within the framework of the departmental budget process that built on SQI methodology.

The decision to limit the prioritisation process to rationing and limiting of services does not necessarily indicate a general change of attitude in the VCC. In our case, the fact that the Model encouraged such a focus added to a general wish in executive management to concentrate the analytical efforts to limiting of services, rather than on how to offer the same service level in smarter ways. Participants knew beforehand that all departmental managers would later be charged with the task as part of further budget reductions.

I find it hard to see any reasons why striving for technical efficiency should not be included in a prioritisation analysis, as long as resources are freed for purposes that are deemed to be of higher priority on ethical grounds. Some ranking of alternatives for resource use must precede the effort.

The two knowledge fields of priority setting and structured quality improvement (SQI) appear to be complementary. The latter takes a keen interest in features of clinical health care organisation, and especially the “micro systems”\textsuperscript{259} of health care (“medicine and economics”) while leaving “philosophy, law, political science”\textsuperscript{260} aside. SQI is founded on theories of systems\textsuperscript{261}, complexity\textsuperscript{262} and organisational learning.\textsuperscript{263} In turn, priority setting discourse has scarcely dealt with health care organisational context.

Combining the two discourses would also be fruitful also from another perspective. One feature of the SQI discourse is a disinterest for external prerequisites for implementation success. This appears to be a logical consequence of its innate epistemology. Some of its central features mirror bottom-up strategies for implementation.\textsuperscript{264} According to the political scientist Sabatier (1986) such strategies have the strength of “recognizing actors’ perceived problems and the strate-

\textsuperscript{257} Skellefteå sjukvärd and Landstingsförbundet (2004).
\textsuperscript{258} In addition, these processes of care were analysed in accord with the parliamentary priority groups and resulted in a model that distinguished patients with severe diseases and in need of continuity from those with less severe conditions for which procedures are more perfunctory. By rationalizing the procedures for the latter group, scarce resources such as physician time were freed and allocated to the first group.
\textsuperscript{259} Batalden and Stoltz (1993).
\textsuperscript{260} Martin and Singer (2001).
\textsuperscript{261} v Bertalanffy (1968), West Churchman (1968), Britton and McCallion (1994).
\textsuperscript{262} Plesk and Greenhalgh (2001).
\textsuperscript{264} A bottom-up strategy also mirrors a naturalist and deductive approach to science, expressed perhaps most clearly in grounded theory (Glaser and Strauss, 1967).
gies developed for dealing with them”. However, “because [this approach] relies very heavily on the perceptions and activities of participants, it is their prisoner – and therefore is unlikely to analyze the factors indirectly affecting their behaviours”. Therefore, the author points out, “it needs to be related via an explicit theory to social, economic, and legal factors which structure the perceptions, resources, and participation of those actors.”

Priority setting discourse clearly recognizes a political framework, ie, “the factors indirectly affecting participants’ behaviours”. However, the apparent lack of interest in organisational settings might be a logical result of top-down thinking. Again, the strengths of each approach mirror the weaknesses of the other.

As argued in Paper II, the two knowledge fields unite in considering organisational learning a method for development. The prerequisites for organisational learning are in turn closely related to the features of deliberative democratic procedures as stated by the political scientist Robert A Dahl (1979). Although Dahl speaks about citizens’ participation in political decision-making, his criteria are widely generalisable. According to him, participants must be prepared to set the agenda together; communicate openly and respect the views of others, share ideas and arguments, agree on and be loyal to the overall result, and act in accordance to it. These were all key social features of our prioritisation process and made explicit in rules presented to all participants in stage 2.265

Dahl also underlines the importance of social representation, which is a theme recognized in recommendations for building improvement teams.266 When preparing priority setting procedures, this would constitute an aspect of the “relevance criteria” of the A4R framework. To my knowledge, the A4R literature elaborates little on the aspect of social representation.267 This makes the contribution from Gibson, Martin and Singer (2005), who recognize and discuss power differences among participants in priority setting, even more important.

10.6 Management as a mediator of core values for priority setting

In the Swedish parliamentary decision, values of justice and equity are the core of priority setting. Whether or not it is supported by appropriate analytical tools and legitimate procedures, priority setting will continue to be a value laden and context bound activity. Results will reflect the structures, processes and cultures used and expressed. Thus, to be reflected in prioritisation decisions, the surrounding organisation needs to be permeated by the very same values. Therefore, I argue that the priority setting discourse would prosper substantially from being

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265 See Figure 3 in Paper IV for details.
266 Pseck (1999).
267 A search on Google Scholar in August, 2010 on [accountability for reasonableness representation], except for an article by Gibson, Martin and Singer (2005), only resulted in papers on public or patient representation in priority setting. That topic was not considered to be relevant here. A search on [health prioritisation representation] found no relevant results.
connected to the worldwide health care management discourse. There, questions such as how management systems could be designed to reinforce organisational relations, trust and learning are high on the agenda.

10.7 The role of administrators

Little attention has been paid to overall administrative management in health care in the prioritisation discourse or that of structured quality improvement.

Thus, the role of central administration is made invisible. This could appear puzzling, since domain theory explicitly describes the administrative domain as separate and carrying its own organisational culture and logics. Because administrators, according to this theory, are or should be organizers of managerial systems, this appears to be an important knowledge gap to bridge. In county councils, central administration functions (or has a potential to function) as a mediator between the professional and political domains and is responsible for construction of managerial systems. The importance of adequate administrative support such as information and decision-making systems appropriate for priority setting was illustrated during the local investigations performed during the purchaser-provider era (Section 7.3). To Sabatier, “committed and skilful implementing officials”\(^{268}\) are critical for implementation success, especially when using a top-down approach. He also emphasizes the importance of supportive implementing institutions.

Some recent efforts to acknowledge administrators have been found. Lilford and colleagues (2004) express the need for a new role for administrators. This role would be to support structured quality improvement, and specifically the construction of relevant information systems, by behaving as “management consultant, not a police officer”. Also in Sweden, Calltorp and colleagues (2006) proposed a widely recognized professionalizing of the health care administrative management domain. Recently in Sweden, interest in evidence based management has started to grow. Management, leadership and administration are not interchangeable concepts. For historical reasons, health care administrators are regarded as assistants to physicians (the core profession) rather than recognized as performing a complex task of tying a complex system together.

Priority setting challenges the administrative and management systems in health care. Because administrators build and maintain these systems, there are reasons to recognize their potential as facilitators for priority setting. Administrators are also important organizers of priority setting processes. They can build diversity in representation, help empower participants and facilitate learning. Those are all features related to fulfilment of the relevance criteria of the A4R framework. Administrators are also necessary for enforcement of any decision-making system.

\(^{268}\) Sabatier (1986), p 23.
There is a fear that professionalization might only serve to “maximize the relative influence” of bureaucrats. Instead, I would argue that professionalization would make visible and affirm the factual complexity of health care management tasks. I believe that it would be for the better for all the system stakeholders, including the tax payers.

10.8 Remarks on generalisability

Some remarks could be added regarding the chosen strategy to implement explicit priority setting in health care.

In Swedish discourse, priority setting in health care is associated with activities performed with the help of the Model. Therefore, implementation would also be very much about teaching organisations to use the Model.

Priority setting might be defined more generally as any systematic or “conscious” approach to resource allocation, based on defined values, rather than confined to activities performed within the limits of the Model. While the Model was very helpful for vertical and horizontal priority setting in VCC, the proponents of PBMA and MMA seem to live quite happily without it. There are multi-dimensional decision-making tools for priority setting purposes to be found internationally, eg, the one produced within the Evidem research collaboration.

Priority setting, performed bottom-up and perhaps with tools more general than the Model, might transgress the border of the health care system and regard the interplay between health care and society as a whole. If so, it might create objects for analysis that are not defined by illness criteria but rather mirror and address social inequity that has effects on health or determinants for health. Ultimately, explicit priority setting would then be tantamount to socially acceptable decision-making procedures—that is, meeting the A4R standards—for handling almost any allocation of public resources. With that in mind, it would be interesting to test the generalisability of our process and methodologies in settings such as social services or public school budgets.

Irrespective of implementation technique or application area, the outcome of explicit priority setting may challenge the social order of the system and thus cause resistance. This in turn requires supportive leadership on both political and management levels.

A general question is whether decision-makers really want to implement the parliamentary decision on priority setting. That might very well not be the case. Anell (2005) might clearly summarise the reasons for implementation resistance as: “...the prime interest of political decision-making may be to maintain legitimacy. Decision-makers produce rhetoric, plans and actual change, and coherence between these three outputs is not necessary for survival. If these outputs are

270 Goethgebeur and others (2008).
separated – i.e., if politicians talk about radical change to please one group, plan in accordance with the interest of others, and in reality only implement minor changes to satisfy the rest – support from the wider population may actually be strengthened.” That is, speaking about fairness in resource allocation is perhaps easier than dealing with its consequences among those having to step aside.

One could also ask why PBMA techniques do not constitute a first choice for Swedish implementers. They are examples of a systematic or “conscious” approach. Besides being generally unknown, they also require adequate managerial supportive systems. For example, compiling program budgets is shown to be complicated in a vertically organised system like Swedish health care. This was made evident in the VCC during the purchaser-provider era when trying to link budgets to the comprehensive investigations (Section 7.3). PBMA requires building appropriate skills as well as information systems, which according to Greenhalgh and co-workers (2004) constitutes an obstacle in any implementation process.

Within a system where management and delivery are organized founded on the logic of processes, and where clinical and economic information follows the patient flow, compiling program budgets, decision-making and resource (re-) allocation would be easier.

10.9 Reflections on future development of priority setting

Since our prioritisation process started, four county councils and a division within a region have embarked on priority setting. Of these, some based their process mainly on our idea of three stages and had professionals perform initial quality revision and horizontal priority setting. Some went directly from vertical priority setting to having the executive or political level perform horizontal priority setting.

No specific political pattern is visible among those health care organisations. Three are governed by a leftest majority, one by a liberal/conservative majority and two by coalitions. Thus explicit priority setting does not appear to be confined to a specific ideology. Irrespective of what outcome is considered to reflect horizontal or vertical justice, capacity to evaluate cost-effectiveness and allocation of resources are basic properties of any public welfare system.

This adds to the general conclusion that Swedish health care management systems need reorganisation. It is not acceptable for the organisational structure to constitute an obstacle to effective management or to the answering of relevant questions such as “what care, to whom, on what criteria, and to what effect?” If nothing else, democratic demands for effective transparency constitute powerful arguments for reorganisation, for introduction of new skills and integration of priority setting systems in health care management.

10.10 Areas for future research

Some areas for future research are suggested above. I will highlight some of these: Priority setting is a multidimensional social project touching on the social and economic order, but little research has been performed from this perspective
within the prioritisation discourse. This is of specific importance for horizontal, multidimensional priority setting, where research is needed to judge how to optimize procedures for knowledge production and decision-making. Gender and power relations, their influence on priority setting, and how to counteract them constitute specific areas for investigation.

Little research has been done with regard to the role of administration and management in implementation in general and specifically priority setting.

At what level should disinvestment decisions be political? While what is deemed optimal would depend on organisational context, investigating different options and their pros and cons would help organizers of priority setting in politically managed health care systems.

Performing priority setting with the help of the PBMA, the Model, and elements from the horizontal stage of the prioritisation process in the VCC would constitute an interesting research case. Perhaps techniques for structured quality improvement could be integrated in the process. Each of the techniques and tools has strengths that might contribute to a legitimate and robust resource allocation result.

VCC is preparing for another round of priority setting for re-allocation, with a political decision to be made in 2011 and implementation occurring during fiscal years 2012 and 2013. The process and procedures will be based on experiences collected during the first round. A thorough follow-up on internal legitimacy is planned by measuring participant satisfaction.

11. Conclusions

Using a framework from Greenhalgh and colleagues (2004) to investigate the innovation of priority setting and the user organisation to the form of health care management systems, helped answer the overall research questions, put forth in Chapter 2.

Priority setting is an ambiguous concept. Based on the Swedish parliamentary decision (1997) its connotations are: decision-making, open to the public, on (all) vertical and horizontal resource allocation in health care, based on the ethical principles of human dignity, needs/solidarity and cost-effectiveness. When defined like this, priority setting constitutes a complex innovation. In Swedish discourse, priority setting is primarily understood as activities performed with help of The Model.271

Decision-makers expected explicit horizontal and vertical priority setting to result in reallocation to underfunded, high-priority patients groups and therapies, as well as improved effectiveness.

Explicit priority setting requires appropriate management systems that include systems for information and knowledge production, organisational learning and decision-making.

271 Carlsson and others (2007).
The user organisations, and specifically their management systems, are not prepared for priority setting. They need profound restructuring. Such rebuilding is also motivated by other needs related to demands for democratic transparency.

Implementation strategies should address the ambiguity of the concept and the lack of adequate structures, processes and knowledge base. These make the implementation difficult and complex. Implementing explicit priority setting includes policy-oriented learning that consists of “clarifying...objectives, theories and supportive constituencies”. In such cases, Sabatier recommends evaluations span a period of at least ten years. Stakeholders, who wonder why health care is not yet organised for open priority setting, will hopefully find relevant answers in the results presented here.

Conclusions were drawn, based on the results of the empirical studies:

Paper I reveals the complexity of the innovation and the lack of appropriate management systems for priority setting in the VCC.

Paper II shows that successful priority setting can be performed locally with an outcome perceived as legitimate by all stakeholders. Among suggested success factors were: a) a value base and an analytical tool appropriate for priority setting; b) procedures meeting the A4R conditions; c) a process organisation based on methodologies for structured quality improvement; and, d) relevant training among participants.

Papers III and IV described and evaluated a case of a successful priority setting process, engaging an entire health care organisation. Success was measured as a) the process satisfying politicians’ directives; b) participants’ satisfaction with procedures and perception of legitimacy of the subsequent reallocation decisions; and, c) methodologies rendering the intended outcome.

Among suggested reasons for success were: long-term overall preparations mainly to the form of building of knowledge among stakeholders; broad and deep participation; a tension for change among participants; a stage of horizontal priority setting, performed by professions’ representatives and adding to the quality, feasibility and perceived validity of the knowledge base; a strong political and administrative process leadership; and politicians determined to protect the process from opportunistic disturbances.

Sabatier (1986).
Sammanfattning på svenska (Summary in Swedish)

Att skapa organisatorisk kapacitet för öppna prioriteringar

Att använda en bottom-up-strategi för att implementera ett top-down beslut

I denna avhandling betraktas prioritering, i form av det svenska riksdagsbeslutet om prioritering (1997), som en innovation som ska införas i hälso- och sjukvården. Innovationens egenskaper undersöks genom närläsning av centrala dokument. De praktiska följderna för hälso- och sjukvårdsorganisationer och deras lednings- och styrsystem av att implementera prioriteringsbeslutet identifieras med hjälp av svensk och utländsk litteratur.


Artikel II beskriver en fallstudie med öppen prioritering på verksamhetsnivå med syftet att öka kostnadseffektiviteten i provrörsbefruktningsverksamheten och ransonera behandlingarna på ett sätt som uppfattades legitmit av alla intressenter. Interventionen kombinerade prioritering och tekniker för strukturerar förbättringsarbete. Den resulterade i a) ökad effektivitet i den diagnostiska verksamheten vilket möjliggjorde resursöverföring därifrån till behandlingar, b) att patienterna prioriterades och behandlingsressurserna ransonerades baserat på evidens om behandlingseffektiviteten bland undergrupper. En utvärdering visade att tillvägagångssättet (procedurerna) motsvarade vissa på förhand uppställda kriterier för legitimit.

Artikel III beskriver prioriteringsprocessen på makronivå ovan och utvärderar den i ett deltagarperspektiv med hjälp av enkäter. Deltagarna uppgjer behov av att förbättra delar av såväl processen som helheten som detaljer i procedurerna,
men även starkt positivt engagemang i och på det hela taget tillfredsställelse med såväl processen som det politiska omfördelningsbeslutet.

Artikel IV utvärderar procedurerna för bortprioritering i processen i artikel III och jämför dem med ”programbudgetering och marginalanalys” tillämpad på makronivå. Utvärderingen visar att procedurerna gav det avsedda resultatet såsom vertikal och horisontell prioritering och att processen var sammanhängande och logisk. De ekonomiska målen nådades dock inte under något av stadierna.

Till avhandlingens slutsatser hör att hälso- och sjukvårdens system för styrning och ledning inte är förberedda för prioritering och behöver genomgripande översyn. Likaså att prioriteringsprocessen var lyckad i det att a) den motsvarade de politiska direktiven, b) deltagarna var nöjda med procedurerna och uppfattade beslutet som legitimitet samt c) procedurerna gav det avsedda resultatet.

Till troliga framgångsfaktorer hör långvariga förberedelser, brett och djupt deltagande, en önskan om förändring bland deltagarna, ett stadium av horisontell prioritering som ökade kvaliteten, genomförbarheten och trovärdigheten hos kunskapsunderlaget, stark processledning samt politiker som försvarade processen mot opportunistiska störningar.
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