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2008

*citation for published version (APA)*
Strating, M. M. H., Zuiderent-Jerak, T., Nieboer, A. P., & Bal, R. (2008). *Evaluating the Care for Better collaborative*. Erasmus University Rotterdam.

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## Results of the first year of evaluation

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# Contents

# Samenvatting

Het programma Verbetertrajecten Zorg voor Beter is een nationaal kwaliteitsprogramma in de Nederlandse verpleeg- en verzorgingshuizen en de thuiszorg. Met behulp van de Doorbraakmethode wordt in een groot aantal zorgorganisaties in deze drie sectoren projecten uitgevoerd op een zevental thema's. Deze thema's zijn: preventie seksueel misbruik, probleemgedrag, zeggenschap, eten & drinken, medicatieveiligheid, decubitus en valpreventie. De doelstellingen van het programma zijn als volgt:
- Minimaal 350 instellingen hebben deelgenomen aan een verbetertraject.
- In minstens 70% van de instellingen die hebben deelgenomen aan een verbetertraject is een aantoonbare verbetering gerealiseerd.
- Minstens 70% van de instellingen die aan een verbetertraject hebben deelgenomen past de methodiek ook toe op andere onderwerpen.
- 80% van het management en de kwaliteitsfunctionarissen van instellingen in de zorgsector is op de hoogte van het programma en enkele producten.

Het programma wordt onder auspiciën van ZonMw uitgevoerd door Vilans, dat ten behoeve van de uitvoering van het programma samenwerkt met een aantal andere partijen, zoals het Landelijk Expertisecentrum Verpleging en Verzorging (LEVV) en de Landelijke Prevalentiemeting Zorgproblemen (LPZ), naast individuele experts op de thema's van de doorbraakprojecten.

In opdracht van ZonMw evalueert het iBMG de Verbetertrajecten Zorg voor Beter. Voor u ligt de eerste tussenrapportage van deze evaluatie, waarin de eerste voorlopige resultaten worden gepresenteerd. De evaluatie is gebaseerd op data die verzameld is door middel van vragenlijsten die zijn ingevuld door de deelnemende teams aan drie van de zeven doorbraakprojecten (decubitus, eten & drinken en preventie seksueel misbruik), observaties tijdens de landelijke conferenties die worden georganiseerd in het kader van de doorbraakprojecten, observaties van het Teamoverleg Verbetertrajecten van Vilans en aan op enkele interviews met projectleiders van Vilans. Daarnaast zijn documenten van het programma, zoals Plannen van aanpak, geanalyseerd. Tenslotte is gebruik gemaakt van aangeleverde bestanden van resultaten op cliëntniveau.

Voor de evaluatie wordt een conceptueel model gehanteerd dat is ontwikkeld door onderzoekers van RAND in de Verenigde Staten ten behoeve van de evaluatie van grootschalige verbeterprogramma's. Dit conceptueel model maakt onderscheid tussen 5 niveaus waarop interventies plaatshebben: (1) contextuele ontwikkelingen in bijvoorbeeld het stelsel van financiering en ontwikkelingen van nieuwe technologie, (2) interventies op het niveau van zorginstellingen, interventies in (3) de structuren en (4) de processen van zorgverlening en tenslotte (5) interventies op het niveau van individuele cliënten. Voor elk van deze niveaus zijn in de evaluatie vragen geformuleerd en worden gegevens verzameld. Hierbij wordt ook gekeken naar de kosten van interventies, in vergelijking tot de opbrengsten (zowel in kwaliteit van zorgverlening als financieel). Over de kosten-effectiviteit van het programma zal echter pas in een later stadium worden gerapporteerd.

*Voorlopige resultaten*
De sectoren waar het Zorg voor Beter programma wordt uitgevoerd – de ouderenzorg, de thuiszorg en de zorg voor gehandicapten – zijn volop in beweging. Mede ingegeven door grote kostenstijgingen in de afgelopen jaren is een aantal grootscheepse operaties in de sectoren uitgevoerd of onderweg, zoals de modernisering van de AWBZ en de invoering van de WMO. Binnen het

kwaliteitsbeleid heeft de afgelopen jaren het instrument van de certificering opgeldt gedaan in de sector en is gewerkt aan het opstellen van 'normen voor verantwoorde zorg'. De effecten van deze veranderingen zijn vooralsnog ongewis. Organisaties die aan Zorg voor Beter deelnemen onderschrijven wel dat de kwaliteitsdoelstellingen van het programma overeenkomen met de eigen strategie, maar voor veel teams geldt dat ontwikkelingen in de omgeving – zoals certificering en invoering van de WMO – sterk interfereren met hun mogelijkheden tot actieve participatie in het programma. Koppeling naar dergelijke ontwikkelingen – zoals bijvoorbeeld gebeurde met de kortingen door een verzekeraar bij deelname aan het programma – verdient meer aandacht.

Waar het programma Zorg voor Beter sterk inzet op kwaliteitsbeleid en innovatie, is het opvallend dat meer *managerial* waarden zoals efficiëntie in het programma grotendeels ontbreken. Hoewel contracten over deelname aan Zorg voor Beter worden afgesloten door bestuurders van instellingen, participeren hogere managementlagen nauwelijks in de teams. Teams geven daarnaast overwegend aan zich bij hun activiteiten niet gesteund te voelen door het management. Ook geven de meeste teams geen (precieze) antwoorden op de door ons gestelde vragen over de kosten van interventies. Dit gebrek aan management participatie kan naast problemen in de projectfase er ook toe leiden dat het lastig kan zijn voor instellingen om de behaalde resultaten op te schalen na de pilotfase. Deze opschaling en verankering in de organisatie is bovendien geen integraal onderdeel van de verbetertrajecten, maar komt vaak pas aan het einde van doorbraakprojecten in zicht.

Overigens kan managementparticipatie binnen de projecten wel verschillende vormen aannemen. Voor sommige thema's kan een meer directieve stijl van leiderschap worden gehanteerd waarbij efficiency prikkels (mede) een belangrijke drijfveer voor innovatie kunnen zijn, terwijl andere thema's – zoals preventie seksueel misbruik – juist een meer op veiligheid en kwaliteitsverbetering gerichte wijze van aansturing behoeven, waarbij teams vooral de ruimte moeten krijgen om aan verbeteringen te werken. Dit lijkt ook op te gaan voor het soort organisatiecultuur die bij kan dragen aan het succes van projecten; waar veelal wordt verondersteld dat een op innovatie gerichte 'groepscultuur' te prefereren valt, lijkt afhankelijk van de thematiek soms ook een meer hiërarchische organisatiecultuur productief te kunnen zijn.

Teams zijn zeer te spreken over de inhoudelijke en methodologische ondersteuning door Vilans. Waar Vilans met gebruikmaking van de doorbraakmethode sterk inzet op het 'gewoon maken' van innovaties in de dagelijkse zorgpraktijk en het meten en verantwoorden van resultaten hiervan, blijkt dit door teams goed opgepakt te worden. Daarbij wordt wel duidelijk dat teams vaak met zeer verschillende uitgangsposities aan projecten beginnen waardoor projectdoelen niet worden gedeeld. Teams herformuleren mede daardoor regelmatig projectdoelen. Naar onze mening is dergelijke doelverschuiving een integraal onderdeel van een innovatief programma en zou dus zeker niet afgeremd moeten worden. Wel kan als voorwaarde worden gesteld dat teams goede argumenten voor doelverschuiving geven en ook resultaten op deze geherformuleerde doelen aanleveren.

Dergelijke doelverschuivingen brengen ook met zich mee dat de aard van de interventies tussen teams kan verschillen. Wij constateren nu dat de meeste interventies vanuit het Zorg voor Beter programma sterk zijn gericht op het protocolliseren van interventies en het stimuleren van naleving hiervan door zorgverleners. Waar richtlijnen en protocollen op zichzelf een goede bijdrage kunnen leveren aan kwaliteitsverbetering dient de bijdrage hiervan echter niet te worden verabsoluteerd en constateren wij dat de nadruk hierop soms ook in de weg kan staan van het vinden van innovatieve oplossingen. Differentiatie in de aard van interventies zou daarom gestimuleerd kunnen worden.

Een soortgelijke differentiatie kan worden nagestreefd ten aanzien van de participatie van cliënten. Waar het programma inzet op een geformaliseerde participatie van cliënten in verbeterteams blijken teams – en cliënten – hierin verschillende keuzen te maken, afhankelijk van de problematiek waar zij zich voor gesteld zien. Ook hier kan variatie positief worden gewaardeerd, mits opnieuw beargumenteerde keuzen worden gemaakt.

Op cliëntniveau kunnen voorlopig de volgende resultaten worden gemeld. Daarbij moet worden aangetekend dat wij tot op heden niet over de originele data kunnen beschikken en voor de resultaten nog afhankelijk zijn van de samenvattingen zoals aangeleverd door betrokken partijen (LEVV en LPZ). Hierdoor is het nog niet mogelijk (a) de juistheid van de data te controleren en (b) relaties te leggen naar andere onderdelen van de evaluatie, zoals teamfunctioneren, de gehanteerde interventies op teamniveau, management betrokkenheid of organisatiecultuur.

Voor Decubitus zijn 6 van de 15 teams erin geslaagd de incidentie van decubitus graad 2 of hoger terug te brengen met (meer dan) 50%. Vier teams hebben een daling van 20-50% gerealiseerd. Bij 1 team bleef de decubitus incidentie hetzelfde, terwijl bij 3 teams een stijging van de incidentie werd geconstateerd. Hoewel slechts 40% van de teams daarmee de doelstelling van het project heeft behaald, geldt voor tweederde van de teams dat substantiële verbeteringen in de decubitus incidentie zijn gerealiseerd. Opvallend is dat terwijl bij alle teams de aandacht voor decubitus toeneemt, dit soms gepaard gaat met het uitvoeren van inmiddels bewezen ineffectieve of soms zelfs schadelijke maatregelen.

Voor het project Eten & drinken geldt dat het aantal cliënten met ondergewicht in de twee afgeronde doorbraakprojecten daalde met respecievelijk 5,4 en 2,3%. Bij niet-deelnemende organisaties was deze daling 1,3%. Hoewel Zorg voor Beter teams daarmee substantieel beter scoren, blijft het resultaat vooralsnog beperkt. Ook de daling in het risico op ondergewicht haalde niet de doelstelling van het project, met scores van 4,6 en 1,5% voor de twee rondes, en 0,7% voor niet-deelnemende organisaties. Opvallend is voorts dat bij een aantal deelnemende teams ook het percentage cliënten met overgewicht was toegenomen. Ook de LPZ gegevens laten een lichte stijging zien; het percentage cliënten met overgewicht steeg van 14% in 2006 naar 18.7% in 2007. Tijdens de observatie van de slotconferentie van de eerste en tweede ronde werd duidelijk dat verbeterteams dit toeschrijven aan het feit dat interventies zich richten op alle cliënten van een pilotafdeling, dus ook op die cliënten die geen risico lopen op ondervoeding, maar juist risico lopen op overgewicht. Regelmatig wegen kan dit blijkbaar niet voorkomen.

Dit geeft aan dat het stimuleren van een goede ambiance voor eten, een centrale interventie binnen het Eten & drinken project, wel degelijk effect heeft, maar niet differentieert tussen cliënten met onder- of juist overgewicht. Weegroutines, een andere centrale interventie, kunnen deze differentiatie blijkbaar vooralsnog niet stimuleren.

*Conclusies en aanbevelingen*
Het gehanteerde model voor de beschrijving en analyse van Zorg voor Beter blijkt vooralsnog goed te werken, hoewel de precieze relaties tussen de daarin onderscheiden niveaus gecompliceerder lijken te liggen dan in de oorspronkelijke door RAND gepresenteerde versie. Waar de RAND onderzoekers uitgaan van een causale hiërarchie waarbij omgevingsfactoren doorwerken naar organisaties en via structuren en processen van zorgverlening effecten hebben op cliëntniveau, constateren wij dat er eerder sprake is van een noodzaak tot het in

overeenstemming brengen van deze niveaus met verschillende doelstellingen. Een goed teken daarin is dat de resultaten van onze kwalitatieve en kwantitatieve methoden elkaar daarin versterken, hetgeen tot meer robuuste uitkomsten leidt, hoewel de in deze tussenrapportage gepresenteerde bevindingen nog een voorlopig karakter hebben.

Ten aanzien van Zorg voor Beter constateren wij in de eerste plaats dat de koppeling van inhoudelijke en methodologische expertise in de Doorbraakprojecten een gelukkige is. Betrokkenheid bij de complexiteit van zorgprocessen en het aanpassen van interventies daarop is een cruciale voorwaarde voor het kwaliteitsproces binnen instellingen. De doorontwikkeling van de Zorg voor Beter verbetertrajecten zou hiermee rekening moeten houden. Dit betekent ook dat meer differentiatie tussen Doorbraakthema's en projecten binnen instellingen kan worden gehonoreerd, zowel wat betreft de specifieke doelen die projectteams stellen, de wijze waarop ze cliënten in hun activiteiten betrekken als de aard van de interventies die door hen worden gehanteerd. Van belang hierbij is wel dat afwijkingen van programmadoelen steeds specifiek worden beargumenteerd en waar mogelijk ook meetbaar gemaakt.

Een opvallende omissie in het Zorg voor Beter programma zoals dat tot nu toe gestalte heeft gekregen is de betrokkenheid van hogere managementlagen, inclusief meer op management gerichte waarden zoals efficiëntie. Met name voor de verankering en doorontwikkeling van interventies en resultaten kan dit problematisch zijn. In de verdere ontwikkeling van het programma zou hier meer aandacht aan kunnen worden besteed. Dit geld overigens evenzeer voor de mate waarin het programma rekening houdt met een aantal – soms dominante – omgevingsfactoren zoals certificering en modernisering van het stelsel van financiering. Koppeling van deze ontwikkelingen aan de inhoudelijke doelstellingen van het programma lijkt geboden om borging en verspreiding van projectresultaten mogelijk te maken.

# Chapter 1 Introduction

As part of the National action program for quality, innovation and efficiency, the Dutch Ministry of Health has started a program for the care sector: Care for Better. The results of the first year of the evaluation study of the improvement trajectories of the Care for Better program are described in this intermediate report. The Care for Program started in October 2005, while the evaluation study started in August 2006; therefore the chapters in this intermediate report describe only preliminary results of the evaluation and address parts of the research questions of the evaluation study. Further on in the evaluation study more elaborate descriptions and more in-depth analyses to answer the research questions will follow.

## 1.1 Introduction

Recent Dutch as well as international debates have shown great concern for the quality of services in the care sectors (i.e. care for the handicapped, care for the elderly and home care) as well as for the great variability of quality of care between care providers. In 2001, the Institute of Medicine, in its renowned report on the quality of care stated: "Our present efforts resemble a team of engineers trying to break the sound barrier by tinkering with a Model T Ford" (Committee on the Quality of Health Care in America 2001). The need to improve care has since then been put on the political agenda worldwide. In the Netherlands, the National action program for quality, innovation and efficiency has been one of the expressions of this political attention.

Healthcare, like other public services, is renowned for the slow uptake of quality improvement measures (Schrijvers et al. 2002). Within healthcare, there is a long-lasting debate on the 'implementation' or 'spread' of 'best practices'. The Health Council of the Netherlands, in its 2000 advice on implementation, notes that approaches within evidence-based medicine have for too long taken the route of 'implementing' evidence within healthcare practices, ignoring the specific contexts in which both evidence is produced and the practices in which it has to be implemented (Gezondheidsraad 2000).

Quality collaboratives are one of possible solutions to this 'implementation gap', as they are an explicit attempt to bring together both standard knowledge and approaches (e.g. PDCA-cycles, measuring, centrally defined quality indicators) with local knowledge and experiences, thus combining the 'view from nowhere' of evidence-based medicine with local contingencies. Quality collaboratives have gained in attention since the discovery of the "quality chasm" by the US Institute of Medicine (Committee on the Quality of Health Care in America 2001) and its spread across the Western world and are seen as a means to quickly spread evidence-based practices across care organizations, as there is some evidence that the integration of quality instruments leads to synergistic effects (Grol and Grimshaw 1999). The Breakthrough method has been one of the major instruments put to use in such collaboratives. Health professionals from different organizations are brought together to work on improving a specific subject area of care. Each

organization composes an improvement team of three to five members, which participates in conferences of the collaborative. At each conference, teams attend plenary and concurrent sessions and receive coaching from faculty. Each participating team develops a coordinated set of plan-do-study-act (PDSA) cycles that will guide the implementation of activities during the following action period. The second and third conference and the outcomes conference emphasizes shared learning through presentations on system changes made and results achieved on (clinical) measures by participating teams. In between conferences, teams test, implement, and spread changes using a small-scale, rapid-cycle approach. Teams report their activities and progress to the administration in their organizations, to the sponsoring organizations, and to other collaborative teams on a monthly basis.

Multiple avenues of communication between learning sessions allow the teams to share their innovative changes, barriers encountered, lessons learned, and results with other teams and faculty. In this way, quality collaboratives can work as 'learning laboratories' (Senge and Scharmer 2001) in that they stimulate learning within and between settings.

## 1.2. Care for Better program

As part of the National action program for quality, innovation and efficiency, the Dutch Ministry of Health has started a program for the care sector; comprising home care, care for the handicapped and the elderly. The action program is composed of three parts: (1) enhancing transparency, (2) reorganizing the external review of care, and (3) stimulating the diffusion of best practices. It is this last part of the program that this evaluation is aimed at.

The primary objective of the Care for Better program is to make sustainable improvements in the Dutch care sectors by a spread of best practices. For this purpose a collaborative approach has been chosen in which a targeted 350 care organizations will participate. An adjusted version of the Breakthrough method (Leape et al. 2000) is used in 6 improvement projects focusing on patient safety (including decubitus ulcers, fall-prevention, sexual abuse, medication safety, aggression and behavioral problems and eating and drinking) and in improvement projects focusing on patient autonomy and control.

As a quality collaborative, the program is mainly concerned with the creation of learning environments for the faster uptake of best practices within care organizations (Mittman 2004). The Breakthrough projects, while important in and of themselves, serve as a stepping-stone to reach this more overarching goal.

Targets for the Care for Better collaborative are:
- 350 organizations from the Care sectors will have participated in at least one part of the program
- in at least 70% of participating organizations, a significant improvement of performance is visible
- at least 70% of participating organizations use the methods learned as part of the collaborative in other projects
- 80% of all organizations in the Care sectors know of the program and some of its products.

At the level of the projects more specific targets are formulated (e.g. lowering the prevalence of decubitus ulcer by 50%).

## 1.3. Evaluation study

As noted in the literature, hardly any evidence exists as to the effectiveness of quality collaboratives in bridging the quality chasm: do collaboratives indeed lead to better care? Are they doing this in an efficient manner? Questions like these have hardly been systematically addressed (Mittman 2004; Øvretveit and Gustafson 2002). There even are some indications of publication bias, placing too much value on the results of methodologically weak studies, e.g. relying on self-reporting (Leatherman 2002). The few more systematic studies that have been done are inconclusive with some showing significant improvements (Horbar et al. 2004) and others showing no improvements at all (Landon et al. 2004; Shortell, Bennett, and Byck 1998). The mixed effects have been attributed to several factors, i.e. differences in the external context of care providers, cultural aspects, team functioning, and differences in the availability of resources (Cretin, Shortell, and Keeler 2004).

Moreover, most studies (as well as collaboratives themselves) have focused on hospital care, with some attention being given to chronic illness care (Wagner et al. 2001). Other types of care—i.e. care which is part of the Dutch 'care sector', such as care for the handicapped, the elderly and home care—have until yet hardly been studied. Not only is there a challenge in applying the collaborative approach to the care sector (e.g. given the complexity of the organization of this sector in terms of decentralized care provision, or the need to further develop methodologies such as the Breakthrough method), this challenge also exists for the evaluation of this program. In this sense, evaluating the collaborative approach to quality improvement in the Dutch care sector can be seen as a 'hard case' for this approach.

Also, cost-effectiveness of collaborative approaches has not been established. Where medical treatments have by and large been scrutinized through cost effectiveness studies, quality improvement programs probably consume more resources than any individual treatment (ibid.) and have yet been utterly lacking analyses of their cost effectiveness. Quality collaboratives provide a good starting point to open up this field of study due to their large number of projects running simultaneously.

Further evaluations of quality collaboratives are in dire need, if only to bridge the "apparent inconsistency between widespread belief in and use of the quality improvement collaborative method and the available supporting evidence" (Mittman 2004: 898). Evaluative studies that focus on outcomes, process, cost and the interrelation of these three are needed to open the black box of the quality collaborative: what are the exact interventions done within the context of the collaborative? What factors contribute to success or failure of the program (e.g. amount of training sessions, make-up of improvement teams, involvement of senior management, attributes of quality problems) or of specific parts of the interventions (e.g. audit and feedback, use of PDCA-cycles, social networking) and at what relative costs. This study is designed to meet exactly those needs.

*Aim and research questions*
The primary aim of this study is to evaluate the costs and effects of the Care for Better program at the client, project, organizational and program level in order to assess if program and project targets are met. Differences between projects and between care sectors (i.e. care for the handicapped, care for the elderly and home

care) are assessed in order to be able to assess whether sector specific characteristics mitigate program effects.

The leading research questions are as follows:
1. What are the interventions at the program and project levels that are actually performed within the context of the Care for Better collaborative?
2. What are the effects of Care for Better interventions on the primary outcomes at the client, project, organizational and program level?
3. What are the costs and benefits associated with the interventions at the program and project levels and how do these relate to the effects described under (2).
4. Which best practices can be described on the basis of (2) and (how) do these spread across the collaborative?
5. What are crucial success and fail factors at the project, organizational and program level that influence the effect of Care for Better interventions?

A mixed method approach is necessary for this evaluation, leading to new and promising combinations of research at the client, project, organizational and program levels of the Care for Better initiative. By collecting and analyzing data at all these levels, the study enables drawing conclusions about the interplay of these levels in improving quality of care. This will lead to a unique contribution to the quality of care literature.

The study will lead to both a better understanding of the nature of quality collaboratives as learning devices and will add to our knowledge about the usability and cost-effectiveness of the collaborative approach to improve health care. Furthermore, the study will lead to better knowledge on the success and failure factors of collaborative approaches to improve the quality of care, opening up the black box of quality collaboratives in order to assess what kinds of interventions are best suited for quality improvements. In the economic part of the evaluation the outcomes of the program will be related to its costs. At the project level, the evaluation provides information about the relative cost-effectiveness of each project and intervention. At the program level, the evaluation provides insight into the role of the project partners and compares the cost-effectiveness of Care for Better to other programs. This will lead to better insight into which quality problems are suited for collaborative approaches, in what sectors these approaches can be effectively and efficiently applied, and how effective interventions can selected and applied. The evaluation will also lead to better knowledge about the 'spread' of program results, more specifically concerning best practices. Not only will the dissemination of results within and without the program be studied, the description of best cases will also lead to a further dissemination of project results. Conceptually, the study will add to our understanding of the spread of 'best practices' by answering such questions as: what is it exactly that is being spread? And how are best practices translatable across settings?

## 1.4 Outline of the report

In the second chapter of this report the theoretical framework of the evaluation study will be described. Several theoretical notions on implementation theories, team effectiveness, and cultural change will pass. The chapter thereafter contains the methods used to answer our main research questions. Planned strategies for data collection will be described, a short overview of data collection that has been carried out until now and a short overview of measurement instruments will be given.

In the successive chapters preliminary results of the evaluation study are described. Chapter 4 offers a description of the broader context of the Care for Better program. Government policy, organizational trends are shortly depicted. Furthermore, a first preliminary analysis is given about the motivation for care organizations to participate. The following chapters (5 and 6) consist of descriptions of actual interventions and context at respectively the program and improvement project level. A description of characteristics of participating teams (i.e. team composition, team members' positions, and etcetera) is given. As to the effects of the projects, chapter 7 offers the results of the first finished projects, i.e. Decubitus ulcers, Eating and Drinking and Prevention of sexual abuse. Chapter 8 concerns some discussion points about the role of evaluation researchers in this study. To conclude, in chapter 9 the main issues addressed in the previous chapters are discussed. In the remainder of the report several concepts and abbreviations are used that may not be familiar to each reader, therefore, a list of concepts and abbreviations is given in the end.

# Chapter 2 Theoretical framework

In this chapter, we describe the conceptual framework underlying the evaluation of the Care for Better Collaborative. The chapter first introduces this framework and then discusses all elements within it more specifically. We conclude with a discussion of the concepts of spread and best practice, central within the Care for Better collaborative.

## 2.1. Conceptual model

Variation in effectiveness of quality collaborative teams has been explained by differences in several factors on various levels, i.e. external context of health care providers, cultural aspects, team functioning, availability of resources (Cretin, Shortell, and Keeler 2004; Gordon et al. 1996; Shortell et al. 1998). Although these studies offer important insights into the 'black box' of quality collaboratives, there is need for evaluative research that examines how to integrate organizational, team-, and individual level factors to help ensure successful use of teams in quality collaboratives. In order to study the questions posed in the problem definition, we developed an evaluation framework (see figure 2.1) based on the "chain of action" model proposed by Cretin, Shortell, and Keeler (2004; Whyte 1991). This basic model will serve as a heuristic device to link the different layers of the evaluation of the quality improvement initiative.

According to this theoretical framework the proposed chain of action begins with participating organizations and their environment. Contextual factors such as increasing competition and pressure from health plans to improve performance can push organizations to participate in quality collaboratives (whether this is the case for the Dutch care sectors would of course be an object of research, see e.g. Custers et al. 2007). Interventions at the program level (including other contextual factors such as increasing competition) lead to an innovative organizational culture. Organizations with a commitment to quality and a supportive and innovative culture stimulate the motivation of staff to effectively work together in teams, leading to the development and implementation of system changes that improve processes and, ultimately, client outcomes. Although this 'chain of action' seems intuitively plausible, it should be noted that the relations between the levels in the program are to a large degree hypothetical and could be different. E.g. the model presupposes a top down process of innovation, which in practice might be completely different. Therefore, we use the model for this research in first instance mainly as a heuristic device, stipulating the objects and themes of research, rather than accepting the presupposed chain of causality.

To investigate which factors contribute to the success or failure of Care for Better Breakthrough projects our study focuses on the interplay between the environmental, organizational context and team functioning. Several theoretical perspectives on team effectiveness (Lemieux-Charles and McGuire 2006; Lemieux-Charles et al. 2002; Shortell et al. 2004), innovative culture in organizations (Caldwell and O'Reilly 2003; Argyris and Schön 1978, O'Reilly and Tushman 1997) and on implementation, dissemination and spread (Rogers 1995, Greenhalgh 2004) will be leading in our investigation. The main theoretical perspectives behind our theoretical framework will be discussed in the following paragraphs.

The overall objective of each Breakthrough project is to improve patient outcomes by changing systems of care and care processes. To be able to ascribe outcomes to interventions, it is crucial to first analyze which interventions are actually implemented. Although the concept of implementation is central to the quality collaborative discourse – presupposing that the collaborative works as an 'implementation machine' for elsewhere defined 'best practices' – one of the aims of this research is to analyze whether this is in fact the best way to describe programs such as Care for Better. There are several reasons why such a conceptual analysis is needed. As 'implementation' has developed in relation to quite specific interventions in the organization of (health care) work, the scale of interventions in quality collaboratives is qualitatively different. Second, whereas concepts like 'implementation' but also 'diffusion' or 'spread' presuppose a fixed intervention that is 'implanted' in other practices, research both in health care and in other domains has shown that the actual intervention – that what is spread, diffused or implemented – changes during its dissemination (Latour 1987; Bijker 1995; Timmermans and Berg 2003), making it unclear what is actually being disseminated. Other concepts, like innovation or translation might better encapsulate the dynamics of these processes than 'implementation'. Whereas this conceptual discussion lies at the heart of this research endeavor, we will approach this issue only gradually in the report, first sticking to the discourse of the quality improvement literature.

In the next sections we discuss the main elements of the conceptual model.

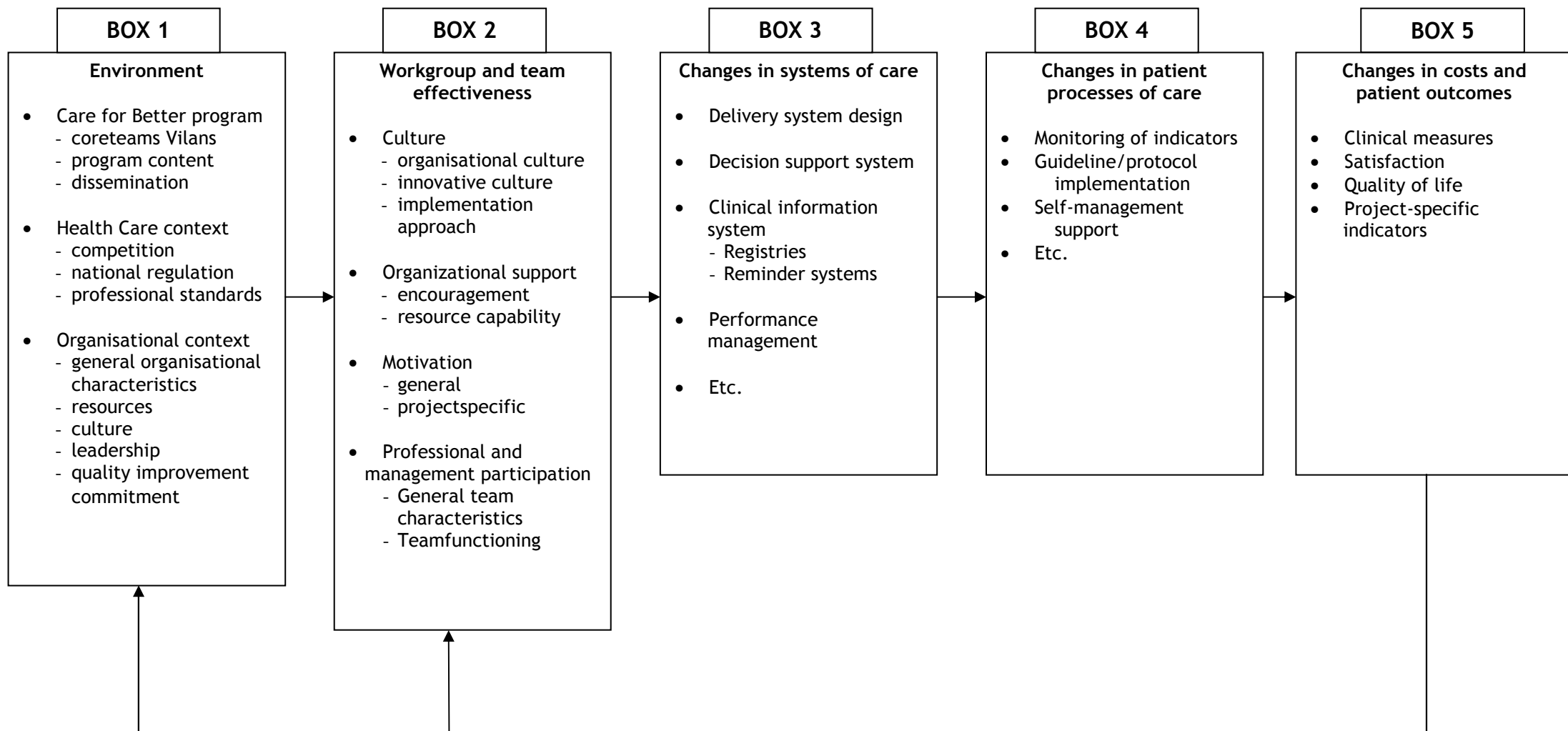| BOX 1 | BOX 2 | BOX 3 | BOX 4 | BOX 5 |
|---|---|---|---|---|
| **Environment** | **Workgroup and team effectiveness** | **Changes in systems of care** | **Changes in patient processes of care** | **Changes in costs and patient outcomes** |
| • Care for Better program<br>  - coreteams Vilans<br>  - program content<br>  - dissemination<br><br>• Health Care context<br>  - competition<br>  - national regulation<br>  - professional standards<br><br>• Organisational context<br>  - general organisational characteristics<br>  - resources<br>  - culture<br>  - leadership<br>  - quality improvement commitment | • Culture<br>  - organisational culture<br>  - innovative culture<br>  - implementation approach<br><br>• Organizational support<br>  - encouragement<br>  - resource capability<br><br>• Motivation<br>  - general<br>  - projectspecific<br><br>• Professional and management participation<br>  - General team characteristics<br>  - Teamfunctioning | • Delivery system design<br><br>• Decision support system<br><br>• Clinical information system<br>  - Registries<br>  - Reminder systems<br><br>• Performance management<br><br>• Etc. | • Monitoring of indicators<br>• Guideline/protocol implementation<br>• Self-management support<br>• Etc. | • Clinical measures<br>• Satisfaction<br>• Quality of life<br>• Project-specific indicators |

Figure 2.1. Evaluation framework

## 2.2. Environment

At the level of the environment of the program, three types of 'context' are distinguished. First, the overall context of the healthcare sectors – elderly care, home care – in which the collaborative is embedded. Environmental factors that might affect the program concern the changing financial and institutional structure of the sector that is talking shape at this time with the introduction of the Social Support Act (Wet Maatschappelijke Ondersteuning, WMO), and the associated restructuring of the Exceptional Medical Expenses Act (Algemene Wet Bijzondere Ziektekosten, AWBZ), regulating the home care and elderly care sectors. With the introduction of the WMO and the restructuring of the AWBZ more competitive elements are brought into the sectors, while at the same time the administrative process of e.g. home care is delegated to the community level (Putters, van Hout, and Cardoso Ribeiro 2007). This change in the governance of the long term care sectors can affect the program in several ways, e.g. by transforming the abilities and willingness for mutual learning, by (dis)aligning quality and financial issues in healthcare organizations, etc. Another important contextual factor at this level concerns the activities of professional bodies and the development of professional standards, in particular their alignment with the Care for Better collaborative. These concern both the work of professional associations like the Dutch Association for Nursing Home doctors (Nederlandse Vereniging van Verpleeghuis Artsen, NVVA), but also those of accreditation bodies like the Foundation for the Harmonisation of Quality Assessment in the Healthcare Sector (Stichting Harmonisatie Kwaliteitsbeoordeling Zorgsector, HKZ) that accredits health organizations. Alignment of standards form these types of bodies with program goals will supposedly facilitate program effectiveness.

Organizational culture is a second contextual factor that is taken into account. Developing a culture that emphasizes learning, teamwork, and customer focus is crucial if significant progress in quality improvement is to be made (Ferlie and Shortell 2001). To evaluate the extent to which organizations develop norms that promote innovation and change, we have developed a questionnaire that measures (1) the extent to which creativity is stimulated by support for risk taking and change, and tolerance of mistakes, and (2) the extent to which implementation is promoted by effective group functioning and speed of action. Assumingly, the key success factor in the effectiveness of quality collaboratives is the existence and development of an innovative culture that enhances the implementation and sustainability of health care innovations. As part of the evaluation of the Care for Better collaborative we are currently monitoring a large number of organizations to examine the extent to which an innovative culture is a precondition to improve health care services or, vice versa, if health care services innovations result in innovative cultures. An innovative culture is here defined as an organizational culture in which 'double-loop' learning, questioning underlying assumptions, and 'meta-learning', questioning the type of learning within the organization, are pervasive (Argyris and Schön 1978; O'Reilly and Tushman 1997). Such cultures will also be reflected in the existence of structural features of the organization to sustain changes and improve quality (e.g. the training of personnel in quality programs, changes in or starting of Management Development programs, blame free reporting systems, performance management in the relation between the

board of directors and care departments, leadership and stakeholder—e.g. client—participation at all levels).

A third set of 'contextual' factors conclude the Care for Better collaborative itself, i.e. the activities of the Ministry of Health, the Care for Better Steering Group, ZonMW and the program executers at Vilans and associated organizations. It is at this level that the main overarching goals of the collaborative are set, an organizational and governance structure for the program is designed, resources are distributed for program execution and alignment with other developments in the sector are formed (or not). Rather than looking at these structures in formalistic terms – e.g. what formal responsibilities, accountabilities and resources are distributed in the organizational design of the program – the approach we take here is looking at the 'enactment' of the program through this organizational design (Rhodes 2007). In Sarah Fraser's terms, where spread is conceptualized as an activity rather than in the passive conceptualizations of 'diffusion' (Fraser 2007) this mean that we are interested in the way the program is performed between its primary constituents. In this way it becomes important who is included in the program and in what ways. E.g. are program activities directed at project teams only or is middle- or higher management also defined as a public for program activities; if so, is alignment between work floor and managerial issues addressed and in what ways? These questions are not only relevant as to program activities directed at participating healthcare organizations and teams, but also at the wider context described above.

## 2.3. Workgroup and team effectiveness

In changes in systems of care and client care processes improvement teams in each organization play a central role. To explain variation in degree of realized changes and effectiveness of teams, team level factors as team leadership, goal specificity, goal agreement, team functioning, availability of resources, and type and degree of support from management are considered important. At the individual team member level personal commitment to change, willingness to take on extra tasks and learn new skills, and dedication to quality of care may play a role.

Research on team functioning and effectiveness of teams in healthcare has mainly focused on clinical teams and improvement teams (see review of Lemieux-Charles 2006), and less on temporary quality improvement teams or project teams. Improvement teams in the Care for Better collaborative are a distinct type of team as teams are the collection of people that are developing recommendations for improvement, but are distinct from improvement teams. The latter are implementing the proposed changes. Since members of improvement teams are chosen across the organization, division and existing improvement teams, members of improvement teams are not all members of the same work team. In practice this means there is a 'double implementation' going on: (a) implementation of overall Breakthrough theme interventions by project teams and (b) implementation of project team interventions by improvement teams. Furthermore, improvement teams are temporary, have a defined task and goal and have the opportunity to collaborate and share knowledge and experiences with other improvement teams outside their organization.

In their review of team studies Schmitt et al. (1988) and Schofield and Amodeo (1999) concluded that team studies usually have examined processes or outcomes but not the relations between these two, which makes it hard to draw any conclusions about whether teams are effective, what types of teams are effective, and at what and under which conditions they are effective. The Integrated Health care Team effectiveness model Lemieux-Charles (2006) offers a theoretical framework for studying the complex interactions between organizational context, team composition, task type and task features, team processes, team psychosocial traits and team outcomes. Since characteristics as team composition, task type and task features are different for improvement teams in quality improvement collaboratives than for improvement teams, it is questionable whether research findings on work team effectiveness in healthcare can be translated and applied to this specific type of team. Some research has been done on characteristics of quality collaborative teams and the relation with objective outcomes (Mills 2004; Neily 2005), but more attention should be paid to the specific context, team processes and their relationships with the outcomes teams realize.

## 2.4. Changes in systems of care

One of the crucial interventions of quality programs in health care concern the ways in which processes of patient care and improvement are organized. Within collaborative approaches, the Breakthrough method itself is a clear example, trying to enact a short-cyclic approach in which teams set project goals, establish measures to assess progress towards these goals and select interventions for furthering them (Schouten et al. 2007). In this context, information systems for management information are important infrastructures on which improvement is built, but so are ways in which performance management functions within healthcare organizations (Berg 2004). E.g. if care teams are mainly assessed as to the costs they produce for the organization, this will affect quality work differently then when team functioning is assessed on mixed criteria, including quality parameters. Therefore, not only the existence but also the functioning of information and performance management systems (whether these are paper based or electronic) is a crucial question for understanding the effects of the collaborative.

Next to the information and performance management infrastructures, also the organization of the supportive processes for care giving are crucial aspects to be addressed in quality improvement processes. For example, creating a good atmosphere for eating and drinking in a long term ward to enhance under- or overweight, such as done within the Eating and Drinking improvement project of the Care for Better collaborative, presupposes a transformation of the food chain within the entire healthcare organization. As many processes of care giving at specific sites are tied into or part of a chain of activities within other parts of the organization (or are even part of longer chains, such as reducing the length of stay in hospital wards is dependent on the availability of care resources at nursing homes or in home care organizations), the organization of these chains of activities and resources can form strong enabling or constraining factors for quality improvement and sustenance.

## 2.5. Changes in patient processes of care

Evidently, the way in which actual care is performed relates directly to the goals of the quality collaborative, and it is at this level that most interventions of collaborative programs are targeted. Such interventions can take the form of guideline implementation or the implementation of 'best practices', the furthering of self management of patients, the uptake of new care technologies, etc. Within the context of the collaborative approach it is the expert team of each improvement project that defines what interventions at the patient process of care are considered for implementation on the basis of literature review and existing best practices. To account for program effects on the client level it is necessary to assess which of these interventions are actually implemented by the improvement teams, rather than taking these considered interventions, as laid down in the Plans of Action as a given, as is too often done in quality collaborative evaluations (Øvretveit and Gustafson 2002).

## 2.6. Changes in patient outcomes and costs

The last part of the conceptual model is concerned with actual patient outcomes. These fall into four categories, which might overlap within specific improvement projects. First are clinical outcomes, such as decubitus ulcer rates, which are expected to improve as a result of participation in the collaborative. Second are patient satisfaction and experiences with the care process. Third are project specific outcomes that are defined within each of the improvement projects. Last, quality of life is taken as an overall measure of outcome at the patient level crosscutting all specific projects. In Chapter 3 an account will be given of all specific outcome indicators.

*Cost-effectiveness*

In a later phase of the evaluation of the care for Better collaborative, the costs of the interventions will be assessed in relation to the effects of the program at the client level. Costs include the costs of the care for better program and the costs at the project level. These latter costs concern the incidental and structural costs made by the healthcare organizations to implement and maintain the process improvements. Examples of these types of costs include project coordination, time costs of employees due to changes in the work process, costs of education, and costs of registration and monitoring. Process improvements may also lead to cost savings due to more efficient deployment of personnel and the prevention of failures. At the program level, costs consist of organizing the care for better project. These involve the costs of ZonMW, Vilans, and other project partners.

## 2.7. Spreading best practices

Central to the discursive construction of the Breakthrough method and quality improvement collaboratives more generally is that of the possibilities they give for the 'spread' of 'best practices'. The idea of establishing, identifying and disseminating 'best practices' is key to much of the present management- and quality in healthcare literatures. Best practices are to be identified by assessing data on various care practices in a benchmark. Those projects that perform significantly better than the others are branded as best practice and are generally seen as role models for delivering a particular kind of care. Substantial practice and outcome variability calls for the establishment of best practices where they

were undefined, and a better diffusion of those best practices that have been determined (Zairi 1999). This has led to many formal descriptions of crucial interventions that, assumingly, are responsible for best outcomes.

There are however substantial practical and theoretical comments to be made to this conceptualization of the 'diffusion of best practices'. As discussed within contingency theory, one of the difficulties relates to the diametrically opposed concept that no single intervention is effective in all circumstances (Donaldson 2001). According to contingency theory, local specificity is defining by and large which interventions lead to the best results in an organization. Consequently, if the performance of a care organization is the outcome parameter that helps quality improvement initiatives 'keep their eyes on the prize', a deeper understanding of the configuration of interventions within their context is needed to understand the value of this outcome for other care settings. Hence, rather than focusing on formalized descriptions of interventions that need to be spread, we focus on the lessons that can be learned from the way a care organization attains best results. We therefore see the value of defining best practices as allowing the evaluators to get an understanding for which configurations of interventions and context make care organizations perform best. This will further allow other care practices to translate the effective elements to their own configurations of care delivery, thereby enabling them to learn to perform as good as they can within their specific setting – possibly attaining a new 'best practice'.

One of the present uncertainties in the Care for Better collaborative in relation to dissemination is that *what* it is that is being spread is "a difficult question (…) to answer" (Fraser 2007, pg 10). This 'what' that is being spread refers at times to effects of implementations, i.e. outcomes, at other moments to the instruments that are being implemented, and in yet other instances to the quality improvement methodology itself (Fraser 2007). In the results chapters that follow – and especially Chapter 5 – we will therefore focus on the ways in which 'best practice' is actually given shape in the context of the Care for Better collaborative.

Before turning to the analysis of the Care for Better collaborative and the description of results, we will first in the next chapter present our research methods.

# Chapter 3 Methods

## 3.1. Design of the study

In the evaluation four levels of analysis are distinguished. The first level comprises the Care for Better collaborative overall, in which ZonMW and Vilans are acting parties. At the program level the different improvement projects are running with Vilans improvement project leaders and members of the core team as actors on this level, also referred to as improvement project level. The organizational level refers to the larger organizational context in which one or more improvement teams participate in one or more of the improvement projects. Within each care organization each project on which an improvement team is working is referred to as local project level or improvement team level. Finally, a client level is distinguished to analyze changes in process and outcomes for individual clients. At all the different levels questions have been asked and data has been collected. In the description of the different parts of the data collection the different actors, subjects under study and respondents on each level are mentioned.

The methodological approach to study the effects (including side-effects) of Care for Better interventions on the primary outcomes at the client, project, organizational and program level involves both qualitative and quantitative research methods. It is exactly this mixed methodology that enables us to be specific about the kinds of results that can be attributed to particular interventions and that will allow those wanting to benefit from these interventions to asses which specific conditions afforded such results.

## 3.2. Data collection

The following paragraphs present an overview of the different parts of data collection on each level. In each part of this description a distinction is made between which activities were planned as suggested in our proposal, which activities are until now executed and which adjustments were made compared with the initially proposed activities.

### 3.2.1. Program level

*Qualitative*

The first step of the empirical analysis of the Care for Better collaborative will be a discourse analysis of the Plan of action of the program as a whole, the annual reports of the program and of the logbooks kept by program leadership and ZonMW. For the discourse analysis, the Plan of action (and other reports, such as progress reports) will be compared with the literature on quality collaboratives. In order to increase the validity of our analysis, these documents will be compared with our ethnographic observations of crucial activities within the program (i.e. Care for Better day, consortium meetings and steering group meetings, team meetings of improvementproject leaders, etc.). Results of these analyses will be presented in the intermediate report of 2008.

*Quantitative*
For the program level, an intermediate economic evaluation of the costs is planned for 2008. Information on costs made by ZonMW will be made available by ZonMW in spring of 2008 (i.e. annual reports, logbooks, budgets etc.). Information on costs made by Vilans will be made available by Vilans in spring 2008 (i.e. annual reports, logbooks, budgets etc.). Information on costs made by external organizations (such as LEVV, LPZ) will be made available by Vilans. Information about costs at the program level and the role of the different project partners will be evaluated through interviews, inspection of project documents including budgets and spendings, and inspection of log journals.

### 3.2.2. Improvement project level
*Qualitative*
This step of the investigation involves a discourse analysis of the plans of action of the different improvement projects. Leading questions are: How are the interventions in these projects actually proposed? How is the problem-space defined? And what is expected from the teams that are part of the improvement project? By this analysis we will be able to assess how they relate to the overall plan of action for Care for Better, and how they relate to the actual work of the project teams.

A second step involves observations of kick off meetings, working conferences and closing conferences from all six safety projects (with client participation, leadership and client-centered care as focal points). Until now 12 of these conferences have been observed and in total 21 conferences will be studied. The evaluations by the participants of all conferences are being analyzed as well.

Furthermore, the interventions within the projects will be researched by interviewing all Vilans improvement project leaders thrice: once during the start up of the project, once after 1,5 years, when the results of the first year should be tangibly felt and measurements for the first year should be available, and once after 2,5 years, nearing completion of the project. This will add up to 21 interviews. For this round of interviews we will also include three members of the management of the Care for Better programs (9 additional interviews). Until now the focus has been on observing the conferences, and on carrying out participatory observations at 6 Team Meetings of improvement project leaders and team members for these were highly informative and interactive. Further interviews are planned in the coming year.

### 3.2.3. Organizational level
*Qualitative*
In 2008 and 2009 we will conduct interviews with 30 managers of care institutions, in order to see in which ways the activities of the projects in their institution are consisting of more than only the individual projects and their interventions. These interviews will provide insight into the ways in which the learning capacities of their institutions, their innovative cultures, their structures for performance management, etc. are taking shape. The interviewees will be selected on the basis of the interviews with program management of Care for Better. These interviews will be linked to studying best practices within the projects. We will adopt a new definition of best practices (see chapter 5) and select care institutions accordingly.

*Quantitative*

At this stage of the evaluation data collection at this organizational level has not been started. The development of the organizational survey and the written questionnaire for health professionals in participating organizations is in progress. The organizational survey will be administered to all participating organizations among members of the board of directors, middle managers, members of the project teams, and health care providers. The organizational survey incorporates information on the organization of the health care delivery system, community linkages, availability of self-management support, evidence based decision support, delivery system design and clinical information systems (see Thorsen and Makela 1999) for a description of the measurement instrument).

To determine the value of the projects for the degree of implementation, organizational and team factors and other primary objectives of the interventions a written questionnaire will also be administered among a sample 150 nurses, doctors and quality managers in 30 participating organizations per sector.

Finally, data on 30 non-participating health care organizations for each sector will be generated by means of telephone interviews with a member of the board of directors, a leading care provider and a quality staff employee among other things to assess the diffusion of knowledge on the Care for Better program and its products.

### 3.2.3. Local project level (improvement team level)
*Qualitative*

In order to get a grasp of the variation of interventions we will ask the Vilans improvement project leaders to provide us a list of 6 projects that are implementing different interventions. We will interview all team leaders of these improvement teams and possibly a quality advisor of these local projects using semi-structured interviews.

Our analysis of best practices will be performed by conducting a series of interviews with the professionals who participated in the project and a board member of their care institution. In total 4 interviews will be held for each best practice. In the third year, the study of best practices will mainly focus on the question what the results of the initiatives are to spread best practices and how good results have been maintained, improved or have withered away. Through a series of telephone interviews with managers from organizations that do not participate in the collaborative, we will assess which outcomes, interventions or approaches are being spread. Furthermore we will conduct interviews with the project managers of the best practices to see how their projects have developed. We will also interview the line managers of the same institutes to see how results have spread through their organizations. Finally, the spread and sustainability of best practices will be an item during the interviews with Improvement project leaders that are mentioned above.

*Quantitative*

Variation between improvement projects exists as to the level of data collected on process and outcome indicators by participating improvement teams. In some improvement projects data is collected on individual client level, in others these data only exist at aggregated client level. For each improvement team the

databases of baseline and end-measurement with aggregated client level will be used to analyze the effects of each improvement project.

In addition to the aggregated client data on the effectiveness of the different projects, specific information on the success (or failure) of improvement teams is being collected by a written questionnaire for improvement team members and improvement team leaders. They are asked to fill in a questionnaire at baseline and at the end of the project. Main measures in the questionnaires are: ability to work as a team, ability to learn and apply quality improvement methods, strategic importance of work to home organization, culture of home organization, and type and degree of support from management. Among improvement team leaders further information is collected by means of an additional questionnaire for example with regard to the deployment of personnel and costs of project implementation. For more detailed information on measurement instruments used in the questionnaires see paragraph 3.4.

In addition to the questions about incidental costs (i.e. costs limited to the duration of the project, costs of the project team) and structural costs (costs and cost savings associated with the process improvement) in the written questionnaire, costs of a sample of projects will be determined in detailed cost studies. Research methods include document analysis and interviews with project team members and staff carrying out the work to determine the time spent on each project. Costs per hour will be based on salary scales and additional costing standards (Oostenbrink et al. 2004). The results of these detailed costing studies will be compared with findings based on the written questionnaire. At this point of the evaluation the plan of action for the first detailed cost study is in progress.

From the start of the Care for Better program until the writing of this report several improvement projects were finished, whereas others are still running. For all improvement projects that were finished this past year of the evaluation study no baseline questionnaire (T0) for improvement teams could be sent since these projects already started before the evaluation study started. Therefore, information on incentives to participate and selection of teams was asked retrospectively in the end-measurement questionnaire (T1).

In table 3.1 an overview is given of the response rate of the baseline and end-measurement questionnaire for improvement teams. About 67% of the project team leaders filled in the baseline questionnaire, at T1 about 53% of the project team leaders filled in the questionnaire. Response rate of team members is difficult to estimate, since no accurate data on the number of team members of teams whose project team leader did not fill in the questionnaire is available. Of those improvement teams whose project team leaders did fill in the questionnaire the average response of team members was 62%.

Considerable effort was needed to collect end-measurement questionnaires in the Decubitus ulcers improvement project, since improvement teams were not informed beforehand about the evaluation study and this questionnaire was sent 2 to 6 months after the final working conference. Several of the project team leaders and other team members were untraceable due to relocation within or outside the care organization. Also in the Eating and drinking improvement project improvement teams were not informed about the evaluation study beforehand. Moreover, next to our end-measurement questionnaire improvement teams were also asked to fill in a questionnaire developed by the Vilans improvement project

leader. Considerable effort was needed to stimulate improvement team members to fill our end-measurement questionnaire as well. In case questionnaires did not return by post in time, improvement team leaders were contacted by telephone to ask for cooperation. Three call attempts were made at different moments of the day to reach project team leaders. In case we could not reach them, they were sent a reminder by post.

The following improvement projects were finished in this past year:

_Decubitus ulcers_: two rounds are finished, the last (third) round will be finished in November 2007.
_Eating and Drinking_: three rounds in mainly the elderly care are finished
_Prevention of sexual abuse_: two rounds in mainly the care for mentally handicapped are finished. The data of the second round is now being collected and therefore not included in the analyses.
_Autonomy and control in nursing homes_: data on the end-measurement is being collected at the moment.
_Autonomy and control in residential care homes_: data on the end-measurement is being collected at the moment.

Several improvement projects started during the first year of the evaluation study. For these projects baseline questionnaires for improvement teams were sent and collected:

_Medication safety_: two rounds are now running, baseline data of the questionnaire for improvement teams is available for both rounds
_Fall prevention: o_ne round is now running, baseline data of the questionnaire for improvement teams is available for this round
_Problem behavior: o_ne round is now running, baseline data of the questionnaire for improvement teams is available for this round
_Eating and Drinking_: a fourth round for care organizations in the care for mentally handicapped has recently started. The data of the baseline measurement in the fourth round is now being collected and therefore not included in the analyses.

Table 3.1. Response T0 and T1 questionnaire for improvement teams

| | nr. teams | nursing home | residential care home | home care | care for disabled | long-term mental health care | response team leaders | | response other team members | total |
|---|---|---|---|---|---|---|---|---|---|---|
| **T0 measurement** | | | | | | | (n) | (%) | (n) | |
| Autonomy – Physically Handicapped | 7 | | | | 7 | | 3 | 43% | 10 | 13 |
| Autonomy – Mentally Handicapped | 13 | | | | 13 | | 7 | 54% | 25 | 32 |
| Autonomy – Residential Care Homes | 7 | | 7 | | | | 7 | 100% | 16 | 23 |
| Fall Prevention Round 1 | 15 | 2 | 3 | 3 | 3 | | 11 | 73% | 34 | 45 |
| Medication Safety Round 1 | 12 | 2 | 3 | 3 | 3 | | 11 | 92% | 27 | 38 |
| Medication Safety Round 2 | 17 | 2 | 2 | 2 | 1 | 1 | 8 | 47% | 19 | 27 |
| Problem Behavior Round 1 | 11 | 5 | | | 3 | | 8 | 73% | 24 | 32 |
| **Total T0** | **82** | **11** | **15** | **8** | **30** | **1** | **55** | **67%** | **155** | **210** |
| | | | | | | | | | | |
| **T1 measurement** | | | | | | | | | | |
| Decubitus ulcers Round 1 | 7 | | 2 | | 1 | | 3 | 43% | 4 | 7 |
| Decubitus ulcers Round 2 | 9 | 4 | | | | | 4 | 44% | 10 | 14 |
| Eating and Drinking Round 1 | 12 | 5 | 1 | 1 | | | 7 | 58% | 9 | 16 |
| Eating and Drinking Round 2 | 14 | 3 | 2 | 3 | | | 8 | 57% | 20 | 28 |
| Prevention sexual abuse Round 1 | 10 | | | | 6 | | 6 | 60% | 12 | 18 |
| **Total T1** | **52** | **12** | **5** | **4** | **6** | | **28** | **53%** | **55** | **80** |
| **Total T0 and T1** | **134** | **23** | **20** | **12** | **36** | | **83** | **62%** | **210** | **290** |

### 3.2.4. Client level
*Qualitative*

In a selection of participating care organizations in-depth interviews with clients will be conducted (n=15, 5 per sector). Subsequently, three focus group meetings with clients will be organized (1 per sector). Topics in these interviews and focus group meetings will be: experiences with the improvement project and changes in received care. These interviews will be combined with the location case studies and are scheduled for the end of 2008.

*Quantitative*

In some of the improvement projects process and outcome parameters are collected at client level. Data on these indicators are collected at baseline and at the end of the project. The collection of data at the client level is performed by the participating care organizations. Verification of the data is the primary responsibility of Vilans.

Until now no databases with client level data of both baseline and end-measurements are available yet. For the first two rounds of projects on decubitus ulcers, this is mainly due to reluctance to cooperate of the external parties collecting these data. The databases with client level data of three rounds of participating teams in Eating and Drinking will be available next month. The latter are part of the National Prevalence Care problems (Maastricht University). Data about ill-nutrition in 2006 is already available and the database of 2007 will be available next month. Results of these improvement teams are as of yet only available on aggregated team level based on analyses done by Maastricht University. Also data on the Prevention of sexual abuse improvement project are currently not available.

### 3.3. Measurement instruments
The following paragraphs consist of an overview of the concepts and measurement instruments used in the questionnaire for team leaders and other team members and a more detailed description of the indicators collected within each improvement project.

### 3.3.1. Box 1 Environment
*Care for Better collaborative*
- Satisfaction with practice and support of Vilans Improvement project leader and core team (T1 team leader questionnaire)
- Program content (vision, breakthrough method) (T0 and T1 team leader questionnaire)
- Dissemination of knowledge (T1 team leader questionnaire)
  - Improving Chronic Illness Care Evaluation (ICICE) part C. teamwork survey items 30-32 (RAND)
  - new improvement projects on different divisions, other subjects

*Health care context*
- sense of urgency, competition (T0 and T1 team leader questionnaire)

*Organizational context*
- Quality improvement commitment
- Employee involvement (T0 and T1 team leader questionnaire)
  - ICICE employee involvement in quality planning
  - ICICE human resource utilization
- Incentives (T0 and T1 team leader questionnaire)
  - Board encourages and facilitates improvement
- Change agents (T0 and T1 team leader questionnaire)
  - support from pilot teams
  - team champion

### 3.3.2. Box 2 Workgroup and team effectiveness
*Culture (T0 and T1 improvement team questionnaire)*
  - ICICE culture of home organization. Four types of culture that are addressed 1) group culture, 2) developmental culture, 3) hierarchical culture, 4) rational culture
  - Group Innovation Inventory
  - Team Climate Inventory

*Organizational support*
- Organizational encouragement (T0 and T1 team leader questionnaire)
  - ICICE. Strategic importance to home organization
  - ICICE. Ability to learn and apply quality improvement methods
  - ICICE. C. Teamwork survey. Perceived organizational support
- Organizational resource allocation (T1 team leader questionnaire)
  - time, finances, personnel, etc.

*Motivation*
- Importance of quality improvement to team members (T0 and T1 improvement team questionnaire)
- Project-specific(T0 and T1 improvement team questionnaire)
  - Rogers' attributes, expected positive and negative effects

*Professional and management participation*
- General team characteristics (T0 and T1 team leader questionnaire)
  - enrolment in Care for Better, process of composing improvement team, team stability
  - ICICE C.Teamwork survey part 3
- Team functioning (T1 improvement team questionnaire)
  - ICICE C. Teamwork survey (Lemieux-Charles, 2006) (overall team functioning, team skill, perceived participation and goal agreement, performance of the team)
  - Solidarity (S. Lindenberg)
  - Social cohesion (K. Sanders)
  - ICICE leadership
  - Team champion

### 3.3.3. Box 3 Changes in systems of care
*Quality of Care*
- Assessment Chronic Illness Care (ACIC). (T1 team leader questionnaire) (delivery system design, decision support system, clinical information system)
  Translated to Dutch and adjusted to fit the care sector.
- Performance management (T1 team leader questionnaire)
  - Monitoring of indicators

### 3.3.4. Box 4 Changes in patient processes of care
- Guideline/protocol implementation (T1 team leader questionnaire)
- Self-management support (T1 team leader questionnaire)
  - ACIC. part A. Self-management support

### 3.3.5. Box 5 Changes in costs and client outcomes
- Satisfaction quality of care and quality of life (T0 and T1 client questionnaire)
  - Consumer Quality Index developed by NIVEL
  - EUROpean Quality Of Life instrument
  - Hospital Anxiety and Depression Scale
  - Social Production Function Instrument for the Level of well-being
- Project-specific indicators

### 3.4. Analyses
*Qualitative*
The interviews have been transcribed and the notes from (participant) observations have been written out. These transcripts have been analyzed to explore emerging themes. These findings have been discussed with the steering group, the Care for Better improvement project teams and with the Community of Research Practice of ZonMW.

*Quantitative*
The results of the first finished projects are based on documents from external parties. Original aggregated client data of improvement teams are not available at this moment, but are expected early 2008. Results on the improvement teams themselves are based on baseline and end- measurement questionnaires for improvement teams. Descriptive statistics such as means, standard deviations and percentages are given.

### 3.5. Changes in the research design
Due to unforeseen changes in the program and as a result of our empirical analyses until now, some changes in our methodology have been made. First, a follow-up measurement of one year after ending the project was initially anticipated by ZonMW and therefore also planned in the original proposal. This measurement is, however, not built in as an element of data collection in the structure of the improvement projects. Therefore, in the evaluation study it is impossible to study the long-term effects with respect to the process and outcome parameters. We decided to send a follow-up questionnaire to improvement teams a year after finishing the improvement project to partly fill this gap.

A second change in the original plan concerns the data collection on the client level. In our proposal we assumed that in each improvement project data on client level would be collected. This turned out not to be the case in all improvement projects. In some projects databases with client level data are available, in the other projects only aggregated client data are available. Consequently, only analyses on this aggregated client level are possible. And even though data collected for decubitus ulcers and nutrition do contain information about individual clients, it is not possible to study the effects on client level, since at end-measurement not the same clients were included compared to the baseline measurement. Therefore, also these data will be analyzed on the aggregated client level.

In addition to an analysis based on the major outcome parameter of each project our intention was to perform an analysis with quality of life as the effectiveness measure. One of the aims of this analysis was to provide insight into relative cost-effectiveness of the projects performed in the different sectors. It was not possible for the first projects to collect data on quality of life at the client level. For the second rounds of Medication safety, Problem Behavior and Fall Prevention improvement teams are asked to interview 3 clients at baseline and at the end of the project. For this interview we developed a client questionnaire based on the Consumer Quality Index developed by Nivel, the EUROpean Quality Of Life instrument, Hospital Anxiety and Depression Scale and the Social Production Function Instrument for the Level of well-being. This will allow us to analyze cost-effectiveness at the project level. For the comparison of the cost-effectiveness of the different projects this means that this cannot be done for the projects underway. Furthermore, in the projects on Autonomy and control different quality of life questionnaires are used in the different sectors. For these the relative improvement on the respective quality of life questionnaires will be used as a surrogate outcome. This part of the data collection is currently in progress.

The last change in the original plan concerns our description of best practices. Our initial idea was to identify best practices within the Care for Better program on the basis of the effect measurements at the client and project level. The configurations of these practices would then be qualitatively described. We realized that best practices often cannot just be 'spread' but have to be translated in order to be taken up in other settings. Therefore the descriptions of best practices were to focus on process, implementation of specific interventions and sustaining change within the organization, as well as other relevant contextual factors. What we did not realize, is that it would be virtually impossible to identify best practices on the basis of the outcomes of improvement projects. This is an issue we return to in chapter 5 but for here it suffices to say that we will adjust our definition of best practices and come to different selection criteria.

## 3.6. Strategies to improve the validity and reliability of study findings

The mixed method approach helps us to validate our findings. First, the quantitative results are better understood when taking the qualitative findings into account because they describe the specific local context. The ethnographic observations also quide the quantitative analyses by telling us which relations are particularly interesting to test statistically. As such it enables us to generalize these findings to other situations and populations. Second, by collecting data at the different levels of the quality collaborative the interrelations between these

levels validate or challenge our findings. As shown in our theoretical model (see Figure 2.1 on page 14), the different levels are connected in specific ways.
If there are complementary and theoretically consistent patterns of findings this suggests that our conclusions are relatively robust.

To validate the quantitative research findings we therefore interview both Improvement project leaders, team leaders, team members and key figures in a selection of the participating organizations such as members of the board of directors, middle managers, members of the project team, health care providers and clients and informal caregivers. And a minimum of six case studies (two per sector) will be conducted to analyze the effect of the Care for Better interventions by document analysis and interviews. Moreover, in order to increase the validity of our analysis, these documents are compared with our ethnographic observations of crucial activities within the program (i.e. Care for Better day, consortium meetings and steering group meetings, team meetings of improvement project leaders, etc.).

# Chapter 4 Current trends in the care sector

## 4.1. Introduction
Care expenditures have increased steadily in the past decades, due to demographic developments, the broadening social definition of health, and the increasing prevalence of chronic diseases. It is expected that the costs will continue to rise, and therefore curbing spending on care is becoming a priority in health care policy, especially in view of increasing care needs. Yet at the same time, there is a strong demand for quality improvement in the care sectors. But research on the effectiveness of quality improvement programs is scarce. And even though the uptake of quality collaboratives to develop and spread best practices is promising, we know very little about the conditions under which quality collaboratives do in fact accomplish what they aim for. Contextual factors such as increasing competition and pressure from health plans to improve performance can push organizations to participate in quality collaboratives, but do they also positively influence the effectiveness of the program? And what are the incentives for care organizations to participate in the Care for better quality collaborative?

The questions we try to answer in this chapter are therefore twofold: 1) What are relevant trends that may impact the effectiveness of the Care for Better program? 2) Do organizations differ in their rationale to participate in the quality collaborative? These questions are related to the first box of the evaluation framework presented in chapter 2.

As to the first question, we will for the most part in this chapter describe some of the salient trends in the long term care sectors. Where possible, we will also present data on the ways in which these trends are taken up in the Care for better collaborative or impact upon the work of the improvement teams.

## 4.2. External analysis
One of the greatest challenges for health care organizations is identifying the changes that are most likely to occur and then planning for that future. Organizations have to cope with legislative/political, social/demographic, technological, and competitive changes. To be successful, they must have an understanding of the external environment in which they operate. The choice to participate or not in the Care for Better program may actually be the result of these external pressures, and at the same time these contextual factors may explain why organizations participating in improvement projects are more or less successful in reaching their goals.

*Legislative/political changes*
Developments in the care sectors are turbulent with rather uncertain outcomes. The new basic public healthcare insurance system is supposed to stimulate competition between health care organizations. And the modernization of the Exceptional Medical Expenses Act (AWBZ), a social insurance which covers both

home and long-term institutional care, has resulted in new supply and financing methods. The introduction of care load packages (ZZP's) as a new financing method is supposed to make care services delivery more transparent and reduce costs. Whether these new financing structures actually put incentives on higher quality care is debated within the literature (Custers, Arah, and Klazinga 2007).

Moreover, with the introduction of the Social Support Act (WMO), some services have been removed from the Law on Exceptional Medical Expenses (AWBZ) and are provided by municipalities, starting with domestic help. Local authorities are given a primary responsibility in the provision of adequate care. As municipalities had differing expertise and experience with tendering, this has resulted in huge differences between municipalities (Putters, van Hout, and Cardoso Ribeiro 2007), and has led to claims by home care organizations that they are increasingly confronted with financial shortages. As a result, an extensive restructuring of home care organizations is taking place, both in terms of mergers of home care organizations and in terms of a change in workforce to lower salaried workers. Although claims of home care organizations are attacked by e.g. the supervisory organizations such as the Dutch Healthcare Authority (NZa), indications are that in several regions, problems do start to exist in the functioning of home care; e.g. hospitals in the North eastern region of the Netherlands have argued that they are increasingly confronted with a 'wrong bed' problem as they have difficulties in sending patients home. Such developments are of course consequential for the care institutions who have over the last years been partly shifting their focus from being a 'last resort' to developing 'geriatric revalidation services' focussing on enabling elderly to return home after a stay in an elderly institution. They also prove consequential for home care institutions who have to run quality improvement programs while going through major reorganisations, including the loss of job security for many employees.

We encountered these problems in some of the improvement projects where teams indicated that they had not been able to keep working on their improvement project because of the 'organizational dynamics' that followed from getting a tender in the WMO far below cost price. They had been far too busy figuring out how to actually deliver what they had sold or, if they found they were unable to, deal with the excess of personnel. Since the WMO tenders did not actually imply an obligation to deliver, some care institutions went for a very low price to at least get the tender, seeing what they could actually deliver at that price at a later stage. This of course caused major job insecurity for care workers.

*Economic changes*
The care sector is growing faster than any other sector in the Dutch health care system (VWS Brancherapport Care, 2004). An average annual increase of 14.7% in between 2000 and 2004 resulted in a 2.9 billion budget. Thus far, the indicated care services generally have been provided to the clients and all costs were reimbursed by the AWBZ, whose premiums were levied as part of national taxations. It can be expected that with the 'modernization' of the AWBZ, scarcity problems will increasingly be dealt with through explicit rationing. Organizations are likely to experience more and more pressure to compete on costs in order to strengthen their bargaining position with financial risk bearing insurers and municipalities. The consequences of these developments may be substantially different for the various Care for Better projects, as it may provide incentives for

strong performance on preventing decubitus ulcers while reducing the focus on issues like autonomy for which the business case is much less unambiguously positive.

*Social/demographic*
The increase in chronically ill patient populations and the aging of the population can be seen as an opportunity given their higher demand on care services. Yet, the more extensive care needs of these clients are in fact likely to result in decreased revenues, given the economic constraints (as we already see in de acute care sector).

*Technological developments*
The (cost) effectiveness of care services are expected to depend on developments in telemedicine, telecare, ambient intelligence and consumer informatics. New IT applications are promising for example to enable chronically ill patients and frail elderly to live independently for an extended period of time. Some organizations may use these substitutes for more traditional care services to enhance the scope of their services. However, as these promises have been around for a while, it is also increasingly clear that financial and other barriers to actual implementation of these technologies are huge (van Kammen 2002). Whether for example the WMO will bring about changes in the future of these technologies, for example for breaking down barriers between financial structures between home care and housing, remains to be seen. The fact that much of the infrastructure for home care is being downgraded is not a promising feature for such a development.

*Competitive changes*
There is increasing competition between care organizations. Even though the care sector is growing, the funds to care for individual clients are more restricted. Care organizations will therefore not merely seek revenue growth, but are thought to be more likely to try to compete on the quality of health care services delivery as well. An interesting additional element in this respect is the expansion of certification in the care sector (Bronzen keurmerk, HKZ). Efforts to get certified may in part be explained by the increasingly competitive infrastructure in the care sector. We do however observe that this competition is not merely a driver for innovation. At times teams attended working conferences apologizing for their lack of progress and explaining the cause being their institutes' application for the HKZ certificate. They had been told by higher management to focus on describing processes rather than doing the improvement work, since all protocols needed to be in place for the HKZ certificate. So in extreme cases this competition on quality was at odds with the Care for Better quality improvement initiatives.

Similar tensions occur on a more detailed level concerning the kinds of interventions improvement teams can work on. An example is a team within the Eating and Drinking improvement project that wanted to improve the atmosphere for their clients during meal times. One of the interventions here was to remove medicine trolleys from the dining rooms. First the presence of these trolleys is not conducive to a good ambiance, and second removing them made it all the more clear that medicines should not be distributed during meal times. However, placing the trolleys in the hallway resulted in a reprimand from the fire department, which made this institution jeopardize their Bronze quality certificate. In times where

competition is largely focusing on such certifications schemes, it is hard for improvement teams to resist calls to stop their interventions that prove beneficial in terms of their projects. Yet, this is exactly what they are told to do by improvement project leaders of Vilans, which puts improvement teams at times in an awkward position, stuck between different definitions of quality improvement.

Taken together, the changes described above signify a massive transformation of the care sectors in the years to come. In what direction this transformation is going remains to be seen however, as forces are proving to be multi-directional. What consequences this has for the ability of long term care organizations to e.g. align business with quality is as of yet an open question but we are seeing both negative and positive effects. This makes it particularly interesting to see in what ways the Care for Better collaborative is affecting care organizations, and which organizations are in fact participating for what reasons.

## 4.3. Reasons to participate

The point of departure and incentives of care organizations for participating in Care for Better are important aspects to consider when studying the effectiveness of the program. Is indeed competition with other care organizations the main motive to participate, are participating care organizations those with low quality of care compared to non-participating organizations, and who took the initiative to participate? These types of questions will be addressed in the following paragraph.

In Tables 4.1 and 4.2 incentives to participate in Care for Better are reported. The care organizations report the fit between the program vision and the strategic vision of the organization and of its organizational unit(s) as most essential in their decision to join the collaborative. Comparing oneself with other organizations or with other units in their own organization is also considered important in the decision to sign up. To compare oneself with other organizations points to increasing competition between care organizations. There is as of yet little evidence that cost saving (or revenue maximization) are significant in the decision making process, however.

This is not surprising, when realizing how the teams were actually drawn into the program. At the outset of the program, there were no incentives for collaborating and the program was not liaised to the various structural changes in the system of care for the elderly, the handicapped and for home care. Initially, improvement project leaders had to fill their own rounds of projects by contacting those they knew may be interested. As it proved quite a challenge to fill all the rounds of improvement projects, the atmosphere amongst the improvement project leaders was therefore one of friendly competition. During one of their meetings, a project leader from the Autonomy project indicated that he had found it very useful to contact the quality managers via their own distribution channels, but he admitted that he was not keen on sharing this experience since he was a rather 'late' starter, with his project and he was glad to have found a way to still fill his round of projects. He did have the feeling they were "all fishing in the same pond", and that that pond was not overcrowded with fish.

Table 4.1. Incentives to participate (percentage)
(T0 questionnaire project leaders)

| | Autonomy Physically Handicapped N=3 | Autonomy Mentally Handicapped N=7 | Autonomy Residential Care Homes N=7 | Fall Prevention N=11 | Medication Safety N=19 | Problem Behavior N=8 | Total T0 N=55 |
|---|---|---|---|---|---|---|---|
| competition improvement teams | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (5.9%) | 1 (12.5%) | 1 (3.8%) |
| comparison other organizations | 1 (33.3%) | 6 (100%) | 2 (28.6%) | 6 (54.5%) | 10 (52.6%) | 3 (37.5%) | 24 (45.3%) |
| comparison other units | 1 (33.3%) | 6 (85.7%) | 1 (14.3%) | 2 (18.2%) | 11 (57.9%) | 4 (50.0%) | 25 (45.5%) |
| fit with strategic vision | 2 (66.7%) | 6 (85.7%) | 7 (100%) | 10 (90.9%) | 17 (94.4%) | 6 (75.0%) | 48 (88.9%) |
| fit with vision of unit(s) | 2 (66.7%) | 5 (71.4%) | 7 (100%) | 9 (81.8%) | 19 (100%) | 7 (87.5%) | 49 (89.1%) |

average on 5-point scale ranging from (1) totally disagree to (5) totally agree with (3) nor disagree, nor agree.
% agree is answer category 4 and 5.

Table 4.2. Incentives to participate (percentage)
(T1 questionnaire project leaders)

| | Decubitus Ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | Total T1 N=28 |
|---|---|---|---|---|
| competition improvement teams | 0 (0%) | 1 (6.7%) | 1 (16.7%) | 2 (7.1%) |
| comparison other organizations | 4 (57.1%) | 6 (40.0%) | 1 (16.7%) | 11 (39.3%) |
| comparison other units | 3 (42.9%) | 5 (33.3%) | 1 (16.7%) | 9 (32.1%) |
| sense of urgency | 5 (71.4%) | 11 (73.3%) | 3 (60.0%) | 19 (70.4%) |
| fit with strategic vision | 6 (100%) | 12 (80.0%) | 6 (100.0%) | 24 (88.9%) |
| fit with vision of unit(s) | 6 (100%) | 12 (80.0%) | 6 (100%) | 23 (85.2%) |

This situation changed over time due to a number of causes. First, we were told that the 'brand' Care for Better seemed to be gaining momentum and institutions were more drawn to participating. Second, Vilans and ZonMw started a more coordinated communication approach to prevent such competition amongst improvement project leaders. Third, and this is important for this chapter, one of the large insurance companies started a support scheme that allowed institutions to gain a part of their budget by participating in Care for Better. This is of course an interesting way to promote the participation in such improvement projects, but

one that has had strikingly little uptake by other insurers. This means that the coupling of Care for Better to the larger changes and improvement agenda's is somewhat stronger than at the outset of the program, but is still rather weak in the light of the substantial changes that the care sector is undergoing.

## 4.4. Conclusion

In this chapter an attempt was made to describe current trends in the care sector and the ways in which these influence the effectiveness of the program. There is some evidence that substantial legislative/political, social/demographic, technological, and competitive changes impact upon the work of the improvement teams. There is little proof that new financing methods in the care sector will result in higher quality care, however. And shifts in care provision to local authorities in fact resulted in huge differences in the quality of care between municipalities. Moreover, increasing competition between care organizations also with regard to quality of health care services delivery has actually been found to be at odds with some of the Care for Better quality improvement initiatives. However, the incentive to participate in Care for Better does involve comparing oneself with other care organizations for almost half of the participating organizations.

# Chapter 5 Interventions and context at the program level

In this chapter a description is given of the interventions that are actually performed within the Care for Better program by program managers of ZonMW, Vilans and Vilans improvement project leaders. For the empirical analysis of the Care for Better program a discourse analysis of the plan of action as a whole, annual reports of the program and logbooks was executed. Secondly, a discourse analysis of the plans of action of each improvement project was executed to investigate what is expected from teams and how these plans of actions relate to the overall plan of action of the program. Thirdly, we observed 12 kick off meetings, working conferences and closing conferences of the improvement projects, observed the annual Care for Better-day, carried out participatory observations at 6 Team Meetings of improvement project leaders and team members, observed 2 expert meetings on innovations in the care sector, observed a working session on the development of business cases for Improvement projects and held 4 meetings with the Care for Better program management. These ethnographic observations provide information on the concrete actions undertaken by the executive parties (ZonMW and Vilans) towards the care institutions on a project- and managerial level and allow us to articulate issues that emerge during these sessions. Fourthly, we held two additional ethnographic interviews with Vilans improvement project leaders, with the aim of clarifying the observations and to get information about the set up of their project, the development, the performance targets, the practices of measuring, the roles of the different participants, their diffusion approach, the progress and the expectations regarding the impact of their improvement project. And finally we analyzed those parts of the baseline and end-measurement questionnaires for improvement teams that concern expectations and satisfaction on interventions and actors on the program level. Although questions were asked about characteristics of the program and interventions at the program level, it is likely that team members used the improvement project in which they participated as a reference point to answer these questions. In this chapter most tables present the percentage of team members agreeing with a statemement, tables with mean and standard deviation of these statements are presented in the appendices.

## 5.1. Improvement projects and improvement method
For each improvement project in the Care for Better collaborative an improvement project leader and several experts on the theme of the improvement project were appointed. Together these form the core team of each project. The improvement project leader and the core team provide training and instruction of the improvement teams on conferences and in bilateral contact. The main task of the core team is to transfer knowledge on the improvement method and content-related knowledge to improvement teams. Practically this means explaining the content of the Breakthrough methodology, providing examples of good practices, success stories, and providing a set of indicators to monitor progress. The extent to

which these tasks are fulfilled and satisfy the expectations and needs of the improvement teams plays an important role in the learning process of improvement teams and also of the Care for Better program in itself. The core team is supported on the content of the theme it is working on by an expert team. This team consists of (mainly) Dutch experts on the topic and is consulted intensely at the outset of the project and later on a more ad hoc basis. The differentiation between the core team and the expert team should not be taken to indicate that the core team lacks expertise on the content of the topic. All core teams have members who have longstanding experience with the topic at hand. But the core team also needs to have expertise on running the improvement project and on organizing working conferences etc. In this combination of substantive and methodological expertise in the core team the set up of the teams in the Care for Better program differs somewhat from other collaboratives, such as the Breakthrough projects of the CBO, where these types of expertise are more differentiated between the expert and the core team.

### 5.1.1. The Nolan model and its questions

According to the literature on Breakthrough projects, such projects are based on the so-called Nolanmodel (Van Splunteren 2003; Langley et al. 1996). The Nolanmodel is an important means for improvement teams to implement changes and provides improvement teams grip in monitoring their goals and progress. The improvement model has two parts (see figure 5.1): 1) three fundamental questions and 2) the Plan-Do-Study-Act (PDSA)-cycle. This set up of the projects is also reflected in the plans of action of the improvement projects and at the working conferences. In the kick-off meeting of each improvement project improvement teams are familiarized with the principles of the Breakthrough method and the Nolanmodel and are at times asked to think about the three fundamental questions:
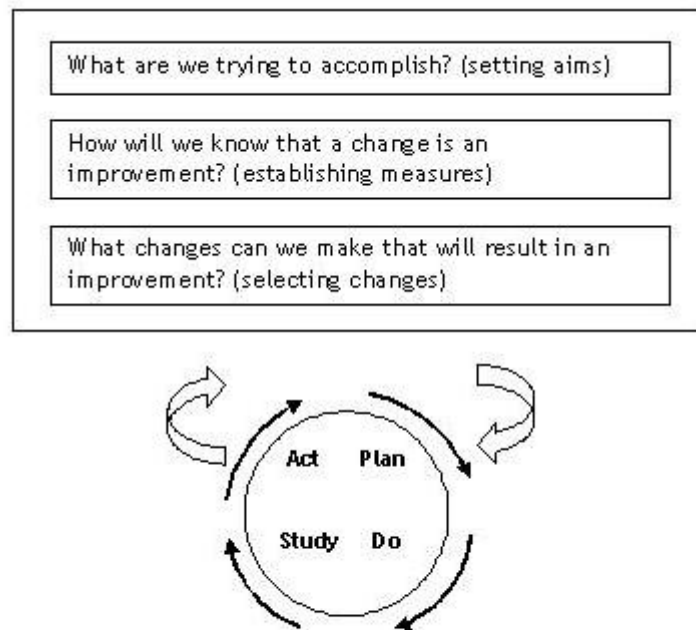


Figure 5.1. Nolan model

## 5.1.2. PDSA and 'can do' management

The second part of the model consists of the PDSA cycle to test and implement changes in real work settings, by planning, trying, studying the results and acting on what is learned. The idea of this aspect of the Breakthrough method is that improvement teams are to implement changes on a small scale first. The intended goal is that after running several PDSA cycles, testing changes on this small scale and learning from this and refining the changes, the improvement team can implement the changes on a broader scale. At the working conferences, it becomes apparent that working with PDSA cycles has other consequences as well: the two main results of working with the PDSA approach are that

1) participants are forced to actually distinguish between interventions, measurement and analysis and;

2) participants are made aware of the idea that innovation is no magic, requires no miracles, but is a *practice* that is very close to their everyday working practices of providing care (cf. Mol 2006).

Regarding the first point, forcing participants to make this distinction between intervention, measurement and analysis seems to be quite an undertaking. Working with PDSA may be very close to 'caring' and improving the way participants carry out their daily work, it is at the same time quite different, for it opens up the process of innovation to scrutiny by making it explicit. This is quite new for many team members and during the 'team time' of conferences, they seem to have a hard time structuring their ideas (plan), translating them into interventions (do) and defining how to analyze the results of their actions (study). Interestingly, care professionals indicate that they are used to improving their care, trying something out, and seeing what works and what does not. Yet this is never done in such a structured way and is never compartmentalized in different phases: if an intervention does not work, they are used to tweaking it a bit, without reflecting on the changes in their mode of analyzing the consequences (cf. Berg 1997). This difference between their customary mode of improving care and the mode enacted by the Breakthrough method seems to require quite a shift in the mindset of team members.

Regarding the second point, the PDSA approach is used to make innovation 'small' and 'do-able'. The notion that PDSA is "what you do all day long", as it is often referred to in the presentations at the conferences and in the DVD's played, works well for preventing fear for participating in the improvement agenda of the collaborative. In one of the 'Team Time' sessions of a starting conference on preventing problem behavior, one of the team members indicated that she absolutely saw no possibilities to start the project at her department since everyone was overburdened and this project was not something they could have 'on top' of the daily work. A team member from another team who was sitting at the same table indicated that he had worked with the PDSA approach before and that he noticed that it was actually no different from the ordinary work, but because of its more explicit structure, it led to quicker results. He therefore had experienced that they were still testing out what worked well with which clients, but that they found out much quicker which interventions worked well in which settings, and therefore this resulted in more time and calm at the department.

The idea that PDSA is not something 'extra' and that innovation need not be difficult, is further enacted in many ways during the conferences. Participants are encouraged to do "as many PDSA's as possible", come up with "at least 5 PDSA's" in a short session, are shown inspiring DVD's that indicate that PDSA's are part of your everyday life and at various conferences jokes were made about carrying out PDSA's to improve the relationship with your partner or in raising your children, emphasizing the 'mundane' nature of improving with PDSA.[1]

This normalization of PDSA's is part of routine healthcare work is strongly linked to a focus on 'can do' management. Teams are continuously encouraged to take charge of their fate and believe in their power to realize change within their organizations and daily care practices. At some conferences this optimism was further cultivated by showing excerpts of the movie *October sky* that tells about a child in a small town in the United States who is determined to become an astronaut, builds his own rocket – despite the mocking of bullies and against all odds – gets a study and research grant and finally travels into space. The message of showing such films to the participants is clear: it can be done, as long as you believe in it and persevere. If you really want to, the film argues, even the sky is not the limit.

At other times the BBC series *Can Gerry Robinson Fix the NHS?* was referred to in order to convey the 'can do' message. In this series, industry guru Gerry Robinson was put in charge of the Rotherham NHS trust and started asking nurses and other personnel what they would want to improve. When care workers came with simple and effective examples, Gerry asked them why they had not proposed those changes yet. They answered that they had not been asked, and Gerry was, according to e.g. the Care for Better team leader on problem behavior, able to change the culture into a 'just do it' culture.

## 5.2. The role of Breakthrough in Care for Better

These elements of the Breakthrough approach – the normalization of innovation and the focus on can do management – seem to work well to structure the ideas of team leaders in the teams from care institutions. Yet, at the same time the improvement project teams and the improvement teams from institutions are quite aware that the Breakthrough method may at times be more and at times be less appropriate. The discussion on the relevance of the Breakthrough method in all situations within the collaborative shifts from proposing that this method is the flesh and bones of Care for Better and should therefore be put center stage in new series of improvement projects that have only the methodology as the common denominator, while teams can participate on any topic they want to work on, to the other extreme position of critiquing the approach for its strong focus on the quantified format of 'outcomes' which may not fit the explorative nature of some themes.

Mostly, the approach is valued but not idolized. In the meetings of Vilans improvement team members and the Care for Better management, there has been some discussion about the value of the Breakthrough methodology and its place in the collaborative. Though both positions mentioned above have been encountered, there seems to be an appreciation for the Breakthrough method for the kinds of projects that are carried out at present, while participants are aware that other methods may be more appropriate at other times.

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[1] But see also section 5.4 below on measurement.

## 5.3. Methodological and content-based expertise

Further, there has grown a general appreciation for the strength of the Breakthrough method as consisting of the three questions and the PDSA cycle when *combined* with a strong focus on the content of the issue at hand. In the improvement project conferences the most productive interactions seemed to emerge when there was a combined focus on the topic of e.g. medication safety or the prevention of problem behavior *and* the Breakthrough method. When discussing this observation with Vilans improvement project team members and team leaders during the working conferences and interviews, the participants indicated that they were striving for a balance between *methodological* expertise and *content-based* expertise. For the 'methodology' to work, they also see the need to be knowledgeable as a team about the content of the issue that is being improved. The improvement projects are therefore based upon two domains of expertise. On the one hand, there is expertise on the content of the topic which may seem 'isolated' in the expert team (which consists of the experts on the issue who are generally not member of the core team) but can actually be encountered in other places in the project as well: the team leader and other members of the core team often have many years of experience with working on, say, the prevention of sexual abuse for clients in handicapped care or on improving eating and drinking behavior in elderly care. Furthermore, the working documents are replete with very particular forms of content knowledge, e.g. leading to differentiations of concepts like 'problem behavior' for geriatric elderly care and 'behavior that is hard to assess' in care for the mentally handicapped.

This combination of forms of expertise is interesting in relation to some critiques that have come to the experiment with 'can do' management in the NHS. In a publication with the telling title *No quick fix for the NHS* (2007) Rebecca Coombes analyzes how Robinson's 'can do' management tactics did not quite lead him to good solutions for problems like waiting lists. He basically proposed adding a patient to each clinic and as doctors critiqued this intervention:

> Not rocket science, that one, Gerry, and, in the absence of data, fraudulent. How busy were they before? If they were slacking, fine. They might already have been working at full capacity. If they were, soon they will be overworked and stressed (ibid., pg 125).

The 'solution' Gerry Robinson proposes seems particularly problematic in the light of logistic approaches like 'direct' or 'advanced access' (Murray and Berwick 2003) that have been quite successful in reducing waiting times by proposing rather different 'solutions' like the reduction of queues and decreasing variability. Furthermore, Coombes points out that at the end of the day, Robinson ran into the problem that "even if the hospital became more efficient, primary care trusts will not fund the additional work, so why bother? Rotherham surgeons had eventually agreed to carry out Friday afternoon lists, but the local health economy could not afford it" (ibid., pg 124). This points out that 'can do' may of course only be fruitful if problems are simultaneously addressed at the level of the healthcare system. Otherwise it may quickly lead to frustration about good ideas with bad results.

So though the methodology of PDSA and the 3 core questions works well as a motivator, the feeling of team leaders is that it needs to be combined with a focus on what the *right* solutions are: not only a focus on 'can do' but also guidance in 'doing the right things'. Furthermore, including contextual factors in the improvement projects seems necessary if only to ensure that teams are working on the 'right' targets and have an open eye on the organizational possibilities to sustain change.

## 5.4. Measuring, complexities and quality improvement

Of course the aim of the project teams is to relate these two forms of expertise in constructive ways. 'Can do' and PDSA to enthuse teams and get them started, experimenting and learning. Issue based expertise to guide teams to allow them to not only 'do' but also 'do the right thing' (e.g. not only work on forms of problem behavior that are disturbing for care professionals, but also on forms like 'withdrawal'). And performance management to articulate that 'learning' and 'improving' is also leading to results that are in line with the aims of the project.

Generally about two months after the kick off meeting there is a first working conference in which particular attention is paid to the measurement part of the improvement method. Improvement teams are familiarized with structure-, process- and outcome indicators and receive information on how to use for example run-charts to monitor their results. There is a strong focus on performance management in the Breakthrough approach. As one of the core team members told the participants in a working conference on autonomy in nursing homes: "Lord Kelvin already said: 'if you cannot measure it, you cannot improve it'". Teams are familiarized with defining 'SMART' targets, informed about the need for continuous performance management and introduced to the practices of creating run-charts. Here the improvement project coreteams have to find ways for dealing with substantial differences in the level of knowledge about measuring amongst the participants.

In order not to scare off participants with this quite new world of measurements, the work that is implied is made quite simple and easy. Teams are informed that the measurements serve purely local purposes and only need to be workable for themselves. As one of the core team members explained it in one of the conferences: "you do these measurement for your own project; this is not in any sense scientific research". This approach seems quite needed at times, where merely measuring itself is a major intervention into the practices of care delivery and –improvement. When told about the importance of making run-charts, one of the team members from a nursing home asked her colleagues: "what's that; a runtch arts?" (and since 'arts' is the Dutch word for medical doctor, she was assuming the presentation was about a new type of professional, rather than about a measurement tool). Where measuring is often presented simply as a prerequisite for attaining results, it often seemed like one of the main achievements of the improvement projects was actually to *introduce* a measurement infrastructure.

But where this lack of familiarity with measuring seemed to be the case for most teams, some teams where highly trained in measuring for improvement, had at times even developed their own ICT applications for this purpose, and were expecting more advanced guidance on what and how to measure. Also there seem to be different ideas about what the problem is that measurements should be addressing. Teams at one of the conferences for reducing problem behavior were

explained that for setting up their project, it is important to choose one or more clients and a kind of behavior they want to work on. In line with the focus on the do-ability of Breakthrough, the size of the project was entirely left up to the teams: if they set the target at reducing the number of times one particular client tries to slap someone from ten times a day to four times, this is as much part of the project as when they want to reduce the number of auto-mutilations on the entire ward.

From the perspective of methodological expertise and to get the measurement infrastructure started, this set up is totally justified. However, this definition of the project and the measurements was questioned by one of the more advanced teams. One of the team members indicated that defining targets on a particular kind of behavior, like e.g. the number of times a client auto-mutilates, makes the project highly symptom-focused. "And I thought, and this is common knowledge to all who work on this issue, that we are seeing a shift away from a focus on behavior and towards quality of existence. Behavior is often a symptom of something completely different, and you can try to reduce the number of times someone is slapping, but than this same person may start hitting his head", while he swings his body back and forth, imitating a client who is hitting his head against the wall. Another, seemingly less 'advanced' participant claims that this move is problematic: "for that you have to be able to assess this quality of existence, though". "But that's what you've got Schalock for!?" the first participant replies, referring to a validated instrument for measuring this and wondering why this conference is not making use of available instruments.

The difficulty for the improvement project coreteam here is that they have to deal with teams who are unfamiliar with measuring outcomes and at the same time should serve those who are familiar with quality of existence questionnaires. For this meeting they had however chosen to focus on the first group, rather than on the latter. It was presented that measurements should live up to one criterion: they should be "KISS – keep it stupid simple". The approach towards measuring was not to use electronic registration systems, as these are hardly used in most institutions, but was to carry out measuring by placing post-it stickers on large sheets of paper to see how often certain behavior occurs per day. The sum of the stickers per day was to be entered in a graph below on a week level and this was to result in a decreasing line.

Though this method is do-able, which seems an important requirement for introducing a measurement infrastructure in these care settings, a participant asked: "But what if you have a third variable, next to time and problem behavior, such as the progression of dementia, due to which problem behavior is automatically reduced, how do I see that in the measurements?". Once again it proves quite hard to manage the complexity of the content of the issues at hand and the need for very simple measurement techniques. Another participant asks: "Should I still indicate when a particular intervention actually took place? Otherwise I will have this line alright, but I'll be unable to see whether a decrease was actually linked to a certain intervention". "Well", the answer is, "there is no need for that, because we keep it KISS, but if you think it is convenient for your project, you can of course do it". A next question is raised: "we are asked to send our measurements to you. That is perfectly fine, but what will happen to those? I for one am really curious about the results of other teams!". The reply "Well, if there is a need from your side, we can provide it".

But of course for these measurements to be insightful, the results really should be connected to interventions, which is not always the case now. When discussing this situation later with the team leader of this Improvement project, she indicated that this was also a typical case of a new project running into an issue that needed to be worked out further, but it of course also indicates the extremely difficult situation in which team leaders have to familiarize improvement teams with the basics of measuring for improvement while at the same time dealing with very complex issues that require quite sophisticated measurement practices. This tension between complex issues and simple measurements provides difficulties that often seem to be resolved by focusing on the simplicity of the method. As we will see in the next chapter this results in do-able measurements, with quite some improvement teams measuring on a daily basis (see Table 6.9) but it does of course leave the question of the quality of those measurement to be addressed.

This moment where there was friction between the different expectations and audiences that the improvement project coreteam faces is telling for the difficulties the improvement project leaders face, but should not be taken as exemplary for the atmosphere on conferences. Generally, the conferences are very exciting and inspiring events. Teams from care institutions are working together and are learning from each other and from experts, they have fruitful encounters with committed and enthused improvement project coreteam members, work in an atmosphere that is good and inspiring and go home with tangible ideas for improving their projects. It therefore should be no surprise that when we asked improvement team members how satisfied they were with the expertise of the improvement project leader and core team in the questionnaires, the members proved to be very positive. In table 5.1 the results for several aspects of expertise are shown.

Overall, improvement team leaders reported high scores on the statements about explanation of and expertise on the improvement method. Also with respect to the content of the theme of the improvement project they found that the core team had enough expertise (96.3% of the team leaders). On other aspects they were less satisfied; only 50.0% of the team leaders agreed that the core team provided high expectations about performance and improvement possibilities. With respect to setting aims for their own project and to be effective in realizing results, raising the bar high enough is an important aspect. In line with this, 82.1% of the team leaders found that the core team provided good practices and evidence on achievable results with the project. With respect to the core team advisor 85.2% of the team leaders found that a sufficient tailored instruction was given.

## 5.5. Steering quality or stimulating learning?
As part of the program improvement teams could participate in national conferences, advisory telephone contact with their core team advisor, forum discussions on the extranet of the Improvement project, contact or visit other participating teams and participate in running PDSA-cycles. The improvement project coreteams had to maneuver a classical problem in learning theory here: they had to steer on content, while not giving answers. According to adult learning theory the experience and own discovery in teaching is crucial, and the improvement project coreteam members seemed well aware of this. Some core

teams provided guidance on the conferences by moving from table to table during 'Team Time', letting the improvement teams work on their own but providing feedback where they saw this was needed, e.g. to help a team translate a general improvement idea to small interventions that could be checked. Other teams had different strategies. The core team on preventing sexual abuse asked the improvement teams to carry out SWOT analyses prior to the meeting which were sent to the core team. The core team gave these analyses back to the teams at the start of a 'Team Time' session, where the teams could work with the feedback. This proved much calmer since the coreteam members were not trying to serve all tables at the same time. It also seemed to give the teams the feeling that they were doing the work themselves, though of course there was substantial steering on the content and process of their work through the feedback that was given.

Table 5.1. Satisfaction with Vilans coreteam (T1 questionnaire team leaders, N=28)

| The Vilans coreteam… | Mean (SD) | agree |
|---|---|---|
| Explained the improvement method well | 5.86 (.85) | 92.9% |
| Provided clarity about aims and working method of the project | 5.89 (.83) | 92.9% |
| Provided high expectations about performance and improvement possibilities | 4.50 (1.40) | 50.0% |
| Provided (a standardized set) of indicators for improvement teams to monitor and steer results, and to compare project results with other improvement teams | 5.29 (1.49) | 78.6% |
| Provided good practices and evidence on achievable results with the project (success stories, anecdotes) | 5.43 (1.14) | 82.1% |
| Made clear the best way to realize our project goals | 5.57 (.88) | 89.3% |
| | | |
| **The Vilans coreteam advisor…** | | |
| Gave sufficient tailored instruction | 5.67 (1.00) | 85.2% |
| Had sufficient expertise of the content of the Improvement project theme | 5.96 (.90) | 96.3% |
| Had sufficient expertise of the improvement method | 6.13 (.64) | 96.3% |
| Had regularly contact by phone | 5.85 (.86) | 96.3% |
| Gave sufficient advise in developing our plan of action, implementing improvement changes and organizing our measurements | 5.78 (.93) | 92.6% |
| Gave sufficient advise when we had questions or ran into some problems | 5.85 (.86) | 96.3% |
| Stimulated us to report monthly and deliver our results in time | 5.74 (.98) | 92.6% |

7-points scale: totally disagree (1) to totally agree (7) with 4 is nor disagree, nor agree
% (totally)agree, answer categories 5, 6 and 7

Table 5.2 shows the extent to which improvement team members participated in the above mentioned activities (columns with Nr.). To investigate which elements of the Care for Better program helped improvement teams to execute the project we asked them to what extent they found these activities helpful in executing the project. On average improvement teams participating in each conference with on average 3 team members per time. Most team members also had contact with the core team advisor and were involved in running PDSA-cycles. Only a few team members participated in forum discussions on the extranet, which may be attributed to a lack of access to Internet facilities in care organizations for primary health professionals. An outlier here was the eating and drinking project where the extranet facilities were more intensely used. The expert who had the task of overseeing the discussions there indicated that he hardly intervened since any time a question was posed there was already much response from other teams; a dynamics he did not want to disturb by giving the 'expert' answer.

Table 5.2. Participation and helpfulness of Care for Better activities
(T1 questionnaire team members)

| | Decubitus ulcers N=21 | | Eating and Drinking N=44 | | Prevention sexual abuse N=18 | | Total N=83 | |
|---|---|---|---|---|---|---|---|---|
| | Nr.* (%) | % agree | Nr.* (%) | % agree | Nr.* (%) | % agree | Nr.* (%) | % agree |
| conferences | 18 (85.7) | 68.5 | 37 (84.1) | 71 | 11 (61.1) | 81.3 | 66 (79.5) | 72.1 |
| forum discussions | 1 (4.8) | 0.0 | 20 (45.5) | 50.0 | 4 (22.2) | 0.0 | 25 (30.1) | 35.9 |
| visit other teams | 4 (19.0) | 33.3 | 3 (6.8) | 14.2 | 2 (11.1) | 40.0 | 9 (10.8) | 24.0 |
| advisory telephone contact | 13 (61.9) | 84.6 | 19 (43.2) | 60.0 | 12 (66.7) | 66.7 | 44 (53.0) | 68.0 |
| running PDSA-cycles | 10 (47.6) | 90.9 | 27 (61.4) | 73.0 | 11 (61.1) | 83.3 | 48 (57.8) | 79.5 |

nr. is number and percentage of improvement team members participating in this activity
helpfullness of activities: 5-point scale ranging from 1) not at all to 5) a great deal
% (totally) agree, answer categories 4 and 5

While the quality collaborative approach is assumed to stimulate learning across improvement teams, only 10.8% of the team members reported to have visited other collaborative teams. Overall, 79.5% of the team members find running PDSA-cycles as helpful in improving care for clients. Also the conferences were seen as helpful by most team members (72.1%). Team members were only asked to rate how helpful an activity was, if they participated in this activity. Therefore, it can be concluded that 24% of those team members who visited other teams found this helpful. The questions remains why so few teams visited other teams, was this due to the fact that they did not expect this to be helpful or due to other factors? Team leaders reported that Care for Better helped them in planning and implementing changes (see Table 5.3), however, they were less positive about the helpfullness of the monthly reports.

Table 5.3. Helpfulness of Care for Better (number and percentage agree)
(T1 questionnaire team leader)

| To what extent … | Decubitus ulcers<br><br><br><br>N=7 | Eating and Drinking<br><br>N=15 | Prevention sexual abuse<br><br>N=6 | Total<br><br><br><br>N=28 |
|---|---|---|---|---|
| did the Care for Better program help you in planning and implementing change? | 6<br>(85.7%) | 14<br>(100%) | 6<br>(100%) | 26<br>(96.3%) |
| were the monthly reports helpful in planning and implementing change? | 2<br>(33.4%) | 9<br>(64.3%) | 6<br>(100%) | 17<br>(65.4%) |

5-point scale ranging from 1) not at all to 5) a great deal
% helpful, answer categories 4 and 5

## 5.6. Expectations of and satisfaction with the Care for Better improvement method

The literature on implementation (Wensing, Wollersheim, and Grol 2006; Grol 2000; Bender et al. 2006) and diffusion of innovation (Rogers 1995; Greenhalgh et al. 2004) claims that factors related to characteristics of the innovation or new method itself partly determine the success or failure of implementation. According to Rogers there are five crucial characteristics of a successful innovation. These five 'perceived characteristics of innovations', as Rogers calls them, are the aspects considered by potential adopters that affect how likely those potential adopters are to move from the first stage of *awareness* to the last stage of *adoption*. These five attributes are referred to as:

- relative advantage: the 'degree to which an innovation is perceived as being better than the idea it supersedes'
- compatibility: the degree to which an innovation is perceived to be consistent with the existing values, past experiences and needs of potential adopters
- complexity: the degree to which an innovation is perceived as difficult to use
- trialability: the opportunity to experiment with the innovation on a limited basis
- observability: the degree to which the results of an innovation are visible to others (Rogers 1995).

Applied to the Care for Better improvement method we hypothesize that the more team members consider the Care for Better method as having a relative advantage over old methods, as being compatible, trialable, and observable, along with less complexity, the more they will implement changes in their care systems and client processes. To test this hypothesis we asked improvement team members to rate the extent to which they agreed with several statements on characteristics of the Care for Better improvement method. In addition to these statements on the improvement method itself, they rated statements on the expected positive and negative effects of participating in a Care for Better improvement project.

In tables 5.4A and 5.4B the results are shown for improvement team members participating in ongoing (A) and finished (B) improvement projects separately, as we do not have results yet on T0 and T1 for the same teams. The statements in the T1 measurement questionnaire for finished projects were formulated in past tense. These statements do not refer to expectations, but to an evaluative judgment of team members after finishing the project. In spring 2008 data on the T1 measurement will be collected for those improvement teams that filled in the T0 measurement questionnaire this past year (spring 2007). For these teams a comparison can be made between what was expected at T0 and to what extent these expectations were fulfilled.

Table 5.4A. Expectations of Care for Better (percentage agree)
(T0 questionnaire team members)

| The methods and interventions of Care for Better… | Autonomy Physically Handicapped N=13 | Autonomy Mentally Handicapped N=32 | Autonomy Residential Care homes N=23 | Fall Prevention N=45 | Medication Safety N=65 | Problem Behavior N=32 | Total N=210 |
|---|---|---|---|---|---|---|---|
| are applicable to our pilot division(s) | 61.5 | 87.5 | 95.6 | 88.6 | 93.8 | 80.6 | 88.4 |
| meet our needs | 70.0 | 87.1 | 82.6 | 86.4 | 86.0 | 76.7 | 83.6 |
| are brought in an appropriate way | 45.5 | 80.0 | 78.3 | 90.9 | 73.9 | 62.0 | 75.8 |
| are well-organized | 45.5 | 67.7 | 66.7 | 81.8 | 71.9 | 63.4 | 70.1 |
| The project has a positive balance in costs and benefits | 54.5 | 30.4 | 40.0 | 48.6 | 53.5 | 56.7 | 48.2 |
| I see risks related to the project | 40.0 | 22.6 | 15.0 | 16.7 | 17.5 | 20.0 | 19.4 |
| The theme of the project is relevant to our division(s) | 92.4 | 100.0 | 95.7 | 95.5 | 95.4 | 96.7 | 96.2 |
| Project results will be observable | 40.0 | 89.7 | 85.7 | 74.4 | 90.4 | 66.6 | 80.0 |
| It is difficult to learn the improvement method | 16.7 | 9.4 | 33.3 | 9.3 | 12.4 | 29.0 | 16.1 |
| It is difficult to implement the improvement method | 36.4 | 51.6 | 38.1 | 18.2 | 30.7 | 42.0 | 34.0 |

5-points scale totally disagree (1) to totally agree (5) and % agree = score 5, 6 or 7

Overall, team members gave high rates on the five dimensions of Rogers, which indicates that they perceive the Care for Better method as having a relative advantage, as being compatible with their existing values and experiences, trialable, and observable, and not difficult to learn and to implement. Interestingly, there seems to be a difference between the ease to 'work' with the improvement method and to 'achieving results' by means of the method. This difference indicates that the relative simplicity and the extent to which Breakthrough is 'packaged' is seen as helpful for working with the approach, which largely contributes to the success of the method. Defining the success of the method in terms of measuring the performance of Breakthrough on an outcome level would lead to quite a different idea about the success of the method. This is not to say that Breakthrough does not 'work' but that is seems to engender other results than merely improvement of outcomes, an issue we will return to in the next chapter.

Table 5.4B. Expectations of Care for Better (percentage agree)
(T1 questionnaire team members)

| The methods and interventions of Care for Better… | Decubitus ulcers N=21 | Eating and Drinking N=44 | Prevention sexual abuse N=18 | Total N=83 |
|---|---|---|---|---|
| are applicable to our pilot division(s) | 85 | 88.6 | 94.4 | 89.0 |
| meet our needs | 80 | 88.3 | 88.8 | 86.4 |
| are brought in an appropriate way | 76.2 | 86.4 | 77.8 | 81.9 |
| are well-organized | 85.7 | 90.9 | 77.8 | 86.7 |
| The project has a positive balance in costs and benefits | 69.2 | 65.8 | 46.2 | 62.6 |
| I see risks related to the project | 28.6 | 18.6 | 6.3 | 18.8 |
| The theme of the project is relevant to our division(s) | 95.3 | 97.7 | 100 | 97.6 |
| Project results will be observable | 90.5 | 95.5 | 83.3 | 91.6 |
| It is difficult to learn the improvement method | 20.0 | 20.9 | 11.1 | 18.5 |
| It is difficult to implement the improvement method | 38.1 | 43.1 | 16.7 | 36.1 |

5-points scale totally disagree (1) to totally agree (5) and % agree = score 5, 6 or 7

## 5.7. Quality improvement and/or efficiency: the involvement of higher management

Tables 5.4A and 5.4B further show that for the improvement teams, the improvement methods in the Care for Better program may be about improvement, but not necessarily about improvement of *efficiency*. In response to the question whether the project had a positive balance in costs and benefits, teams either scored low or were unable to answer this question (missing value). For medication safety and prevention of falls there were high non-response rates to this question, which is all the more interesting since the efficiency gains are more clear for these projects than they are for some other, more exploratory ones like the prevention of sexual abuse. This finding indicates that the collaborative is mainly seen by improvement teams as quality improvement that is not necessarily linked to efficiency gains.

This separation of quality and efficiency (rather than seeing efficiency as an integrated aspect of quality of care) is widely distributed throughout the collaborative. Most improvement projects therefore are rather loosely coupled to management agendas. Though higher management is asked to sign the contract before starting the project, management is not included on a content level. Neither are managers higher in the organizations attending conferences, nor are the projects aimed at addressing managerial problems. This of course has consequences for the results the teams are realizing. And this often led to the frustration of Improvement project leaders who see that 'their' teams either are doing great jobs, but are hardly supported by higher management, or are not doing so well and they would like management to feel this as more of a problem.

The inclusion of managers has therefore often been discussed in the meeting of improvement project coreteam members. The strongest management focus was found in the program on the prevention of sexual abuse, but even this was mainly done by feeding back the results of the improvement teams to management – not by actually addressing some of the other problems managers have. The lack of management involvement was further discussed after the distribution of a report by Sarah Fraser (Fraser 2007) in which she indicated that Care for Better was suffering from 'pilotitis'. With this she meant that the program was good in setting up pilots but had an insufficient focus on coming to sustainable change. But even after this report, the lack of management involvement was seen as a problem of a lack of visionary management. Improvement project leaders indicated that they were missing a focus on quality with managers of care institutions. Interestingly it was not discussed how the program could be presented as addressing quite pressing managerial problems and therefore include managers not on the basis of their enthusiasm and commitment but on the basis of their dependence on quality improvement to achieve their goals.

The only place where this strategy was pursued was during a meeting on creating 'test beds' for business cases of Improvement projects. The potential for such development was discussed by leaders of improvement projects, people from the Ministry of Health, representatives from insurance companies and program managers from ZonMw. The aim of the session was to select some projects that seemed most promising for which business cases would be developed. Interestingly the sole most crucial criterion was the extent to which the effectiveness of the Improvement project on an outcome level was already proven. It was stated that only for projects of which the outcomes were clear, developing a business case

would make sense. This meant that business cases were precisely not discussed as part of the improvement initiative and with the aim of including management. Business cases were not perceived as part of the intervention – with potentially large impacts *on outcomes* – but as a means of quantifying its financial results after the fact. This was neither addressing the problems Improvement project leaders face when trying to include management, nor is it addressing the problems managers face in rapidly changing (financial) environments as described in chapter 4.

In regards to the workload that teams expect, tables 5.5A and 5.5B show that team members do not foresee that participating in the Care for Better program will lead to more uncertainty and more stress. However, the scores on the item 'Participating in Care for Better will lead to more workload' were on average higher, which indicates that at least several team members expected this negative effect. Results of the T1 data show that indeed an increase in workload is experienced (see for more elaboration on this chapter 7).

Table 5.5A. Expected positive and negative effects (percentage agree)
(T0 questionnaire team members)

| | T0 measurement | | | | | | |
|---|---|---|---|---|---|---|---|
| | Autonomy Physically Handicapped N = 13 | Autonomy Mentally Handicapped N = 32 | Autonomy Residential Care homes N =23 | Fall Prevention N = 45 | Medication Safety N = 65 | Problem Behavior N =32 | **Total** **N=210** |
| more workload | 58.3 | 40.6 | 43.5 | 55.6 | 61.5 | 48.4 | 52.9 |
| more energy to execute my tasks | 45.5 | 77.4 | 82.6 | 71.1 | 78.5 | 74.2 | 74.8 |
| more uncertainty in executing my tasks | 0.0 | 0.0 | 17.4 | 6.7 | 6.2 | 6.5 | 6.3 |
| more stress in executing my tasks | 0.0 | 9.4 | 26.1 | 13.3 | 9.2 | 16.1 | 12.5 |
| exercise control over care processes | 66.7 | 50.0 | 73.9 | 75.6 | 86.2 | 67.7 | 73.1 |

7-points scale ranging from totally disagree (1) to totally agree (7)
% agree = score 5, 6 or 7

Table 5.5B. Expected positive and negative effects (percentage agree)
(T1 questionnaire team members)

| | T1 measurement | | | |
|---|---|---|---|---|
| | Decubitus ulcers N=21 | Eating and Drinking N=44 | Prevention sexual abuse N=18 | **Total** **N=83** |
| more workload | 66.7 | 40.9 | 33.3 | 45.8 |
| more energy to execute my tasks | 66.7 | 70.5 | 77.8 | 71.1 |
| more uncertainty in executing my tasks | 4.8 | 4.5 | 16.7 | 7.2 |
| more stress in executing my tasks | 19.0 | 11.4 | 5.6 | 12.0 |
| exercise control over care processes | 76.2 | 56.8 | 83.3 | 67.5 |

7-points scale ranging from totally disagree (1) to totally agree (7)
% agree = score 5, 6 or 7

## 5.8. Sustainability
Studies on the effectiveness of the Breakthrough method have shown that teams are often able to realize considerable improvements, but unable to sustain these results during the months thereafter. As mentioned above, Sarah Fraser has also pointed to this risk in the case of Care for Better, as she states the program may be suffering from pilotitis. This risk was also observed in this study. As stated above, the lack of involvement of management *in terms of managerial issues*, does not contribute to the sustenance of the program. This was increased by the rather separate role sustaining change plays in the working conferences. The issue is raised at a late stage, rather than being part of the approach right from the start. In the last working conference of each Improvement project improvement teams receive information and ideas for tools to sustain the changes that were made and results that were realized, but there is no focus on how interventions should perhaps look differently if they need be sustained. This is not a problem that is only present in this Breakthrough collaborative but is pervasive in much literature on innovation which draws upon the Rogerian notion of the 'diffusion of innovations' (Rogers 1995), where an innovation is designed, diffused and sustained in organizations (Mays 1993). The critique that this approach creates its own 'implementation problems', and that has been articulated for several decades, seems confirmed by the difficulties encountered in the collaborative (Latour 1987; McMaster, Vidgen, and Wastell 1997; Zuiderent-Jerak 2007).

Table 5.6 provides an overview of how improvement teams make sure that the changes and results are sustained. In the T1 questionnaire team leaders were asked to rate to what extent they take care of several sustainability actions on a 7-point scale. Taking care of sustainability by writing down new working methods in procedures and protocols was most frequently reported as it is often one of the first interventions executed in these improvement projects. Also education and instruction of new employees and structural measurements are reported frequently

as a means to sustain quality improvement (respectively, 89% and 86%). The results show that team leaders are moderately taking care of the other actions, especially those actions concerning human resource management. Selecting employees based on their knowledge or experience with improvement projects was reported by 32% of the team leaders.

Table 5.6. Sustainability
(T1 questionnaire team leaders)

|  | Decubitus ulcers | Eating and Drinking | Prevention sexual abuse | Total |
|---|---|---|---|---|
|  | N = 7 | N =15 | N=6 | N =28 |
|  | % | % | % | % |
| new working methods in procedures and protocols | 85.7 | 100.0 | 100.0 | 96.4 |
| testing of new working methods in our planning en control cycle | 85.7 | 86.7 | 80.0 | 85.2 |
| structural measurement of performance indicators | 100.0 | 86.7 | 66.7 | 85.7 |
| education and instruction of new employees | 100.0 | 80.0 | 100.0 | 89.3 |
| appointing a process manager | 100.0 | 53.3 | 66.7 | 67.9 |
| distributing posters, flyers and other information material | 71.4 | 40.0 | 66.7 | 53.6 |
| quality improvement as a fixed point on the agenda of our working meetings | 71.4 | 73.3 | 83.3 | 75.0 |
| quality improvement as a fixed point in job performance interviews | 71.4 | 33.3 | 100.0 | 46.4 |
| selecting employees based on their motivation concerning client safety | 28.6 | 35.7 | 100.0 | 48.1 |
| selecting employees based on their knowledge / experience with improvement projects | 14.3 | 26.7 | 66.7 | 32.1 |
| social control | 71.4 | 60.0 | 66.7 | 64.3 |

7-points scale ranging from totally disagree (1) to totally agree (7)
% agree = score 5, 6 or 7

## 5.9. Spread within the care organisation

Two overall goals for each improvement project are that at least 70% of the participating improvement teams apply the improvement method to other divisions or teams and at least 50% of the participating improvement teams apply one of the principles for improving care for the theme they are working on. Spread is thereby conceptualized in terms of doing a project, rounding it up, and spreading the method or the interventions to other loci. In a workshop on spread and Better Faster, Sarah Fraser used the term "think infection" to underline this approach for spread. This is of course substantially different from conceptualizing spread in terms of scaling up (introducing the same intervention for many institutions or clients within institutions at the same time) or developing incentive structures or regulatory mechanisms to facilitate further spread.

Though these goals seem quite clear, in the practice of the improvement projects it was often unclear *what* it is that is being spread (results, methods, interventions, etc.), how this should be done and by whom and when. Though spread is universally seen as important by the improvement project leaders, it is therefore not an integral part of the approach. Typically the last working conference or the closing conference will have a session on spread, which somewhat sets the spread apart from the Care for Better initiative.

From the results we have until now, we can indicate that within the decubitus ulcers improvement project four of the seven team leaders indicated to go on with the same subject and one team leader reported to go on with the same as well as to start with a new subject (see Table 5.7). With respect to the spread of change and the use of the Care for Better improvement methods to other parts of the organisation and to other subjects most team leaders reported that this was not done yet (see Table 5.8).

Table 5.7. Continuation of the improvement team
(T1 questionnaire team leaders)

|  | Decubitus Ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | **Total** N=28 |
|---|---|---|---|---|
| with same subject | 4 (57.1%) | 12 (80%) | 6 (100%) | 22 (78.6%) |
| with other task/subject | - | 1 (6.7%) | - | 1 (3.6%) |
| with same subject and with other subject | 1 (14.3%) | - | - | 1 (3.6%) |
| No, team is done | 2 (28.6%) | 2 (13.3%) | - | 4 (14.3%) |
| No, although not done yet | - | - | - | - |
| No decision has been made yet | - | - | - | - |

Within the Eating and Drinking improvement project twelve of the fifteen (80%) team leaders indicated to go on with the same subject and one team leader reported to start with a new subject (see Table 5.7). With respect to the spread of change and the use of the Care for Better improvement methods to other subjects about half of the team leaders reported that this was taking place.
The use of the Care for Better method to other parts of the organisation was done in four care organizations (28.6%) (see Table 5.8).

The 6 team leaders participating in the Prevention of sexual abuse improvement project all reported to go on with the same subject. Table 5.8 shows that 3 of them reported that the improvement method is applied to other subjects as well. Spread of the changes to other parts has not taken place.

From this we can conclude that the spread of especially the improvement method is still proving challenging for Vilans. Vilans and ZonMw are well aware of this and regularly discuss how best to deal with spread. This point is of course connected to the issues around the involvement of (higher) management. Still it is often discussed in a somewhat isolated way, e.g. not connected to possible strategies like lobbying with the ministry of Health and with insurance companies to create incentives for such spread. It is discussed in content-based, rather than in strategic/managerial terms.

Table 5.8. Spread of changes and the Care for Better method
(T1 questionnaire team leaders)

| | Decubitus ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | **Total** N=28 |
|---|---|---|---|---|
| | % | % | % | % |
| spread of changes to other parts of the organisation | 1 (14.3%) | 8 (61.6%) | 0 (0%) | 9 (37.5%) |
| spread of Care for Better method to other subjects | 3 (50.0%) | 7 (50.0%) | 3 (50.0%) | 13 (50.0%) |
| spread of Care for Better method to other parts of the organisation | 2 (33.3%) | 4 (28.6%) | 1 (16.7%) | 7 (26.9%) |

5-point scale ranging from 1) totally disagree to 5) totally agree
% agree, answer categories 4 and 5

## 5.10. Where or what is a best practice?

One of the aspects that is normally linked to the Breakthrough method is the concept of best practice. Either best practices are known and should be distributed by means of the collaborative, or best practices are unknown and are to be developed and identified in the improvement project. Also in our evaluation approach, best practice plays an important role, as we aim to identify which teams reach the best results at the lowest cost. We however are finding out that it is rather hard to identify best practices in the improvement projects. To identify a best practice it is necessary to compare projects on the same indicators. And we see in the projects that it seems to be very sensible and good practice to adjust

the goals and indicators in specific situations, which problematizes comparability. We will give an example from the project on medication safety.

Through defining clear outcome measures for the improvement project, the project team on medication safety tried to achieve comparability and possibilities for performance measurement. For this they formulated four project targets that all need to be realized, being:

1. at least 70% of participating wards should realize a reduction of medication errors with 30% within one year;
2. at least 80% of participating teams has formulated a written policy on medication safety;
3. 80% of participating teams has an operating and organizationally secured registration-system for medication errors or near-misses;
4. 100% of reported near-misses or errors is actively discussed and if possible translated into an improvement initiative. Feedback to the reporting party is part of the procedure.

These goals are quite SMART and seem quite workable and doing the job of creating comparability between projects. However, during a kick off conference it turned out that these targets were not quite suiting the complexity of the practices that were being improved.

First, when the teams presented themselves and their aims, there was a team from the north of North-Holland that indicated they had a clear target: "90% reduction of medication errors", they stated. After that, a team from a nursing home in the southwest of Friesland stated that their problem was that they were not working according to protocol. "Our problem is our village-like way of working. Everything is quite small, quite informal and people prefer to arrange things in informal ways, rather than by working according to structure". Another team from a retirement home with nursing home beds indicates that they have taken over too much responsibility of the inhabitants and that they want to revert this balance, but not without introducing a good control-system. They seem to point out to one of the main tensions of the day: autonomy, but with a certain amount of control. One of the next teams from the east of the Netherlands indicated that they face quite a complex problem: they have all their protocols in order, completely according to the Harmonization of quality review in health care and welfare (HKZ) norms (which are ISO 9001 compatible certification schemes for the care sector), and yet they have impossibly low amounts of reported errors. "We have 70 reported errors a year in a very large organization. There must be a lot more going on than that!"

These presentations of the different starting points indicate that, though a clear set of targets was created, there are teams who want to meet this target, teams who want to modify the target, and teams who want to attain the perfect opposite: an increase of (reported) medication errors. The complexity also indicates that 'making a protocol' does not actually imply one is working on the decrease of medication errors in any productive way or may actually, once completed, have to lead to further initiatives to increase reported errors. And even more fascinatingly; the case of the protocols that are in order and low amounts of reported errors problematizes the idea that when you give attention to a problem

domain, the amount of reported errors (first) increases! So it may. But it may also not. Any initiative may therefore always lead to more/less reported errors and this can always be a good/bad sign. What seemed to be a 'good' indicator able to coordinate tensions and complexities, dissolves here into a moving target where at the end of the day, every improvement team may well have a highly compelling story about their success, based on highly ambivalent 'outcomes'[2].

To complicate things further, the afternoon session was started by a speaker from one of the large institutions for care for the handicapped that is supposed to be a 'good practice' for dealing with medication errors. The speaker explained that one of the crucial interventions they made was to give more responsibility to clients in handling their medication, for as long as they could. They classified patients according to their level of self-dependence and claimed this had a positive impact on their medication errors. The problem this induced for care workers, however, was that in their institution, the medication intake had now become largely an issue for the clients themselves, which seriously changed the role of care professionals. If clients now ask a care worker to hand them a jar of pills since they cannot reach it, or to open it for them since they are lacking the strength in their hands, the care workers should do so without controlling which medication they are handing out. This proved one of the major problems with this way of working, since care workers had been instructed throughout their training and their working life, that – in order to ensure medication safety – they should never hand out medication without checking it.

So once clients were classified as self-dependent, they had to stop controlling them. And yet they still had a crucial responsibility in the process of ensuring medication safety: they should continuously be observing whether clients were still really capable of handing their own medication. The condition of clients who were at first able to take care of their own medication may deteriorate due to which their medication handling should be taken over by the care institution. It however proves quite hard to assess this sliding scale of the classification: if a care worker finds a pill on the floor once, he or she may not draw the conclusion that this client is no longer capable of handling medication autonomously. But the event should also not go unnoticed. Such events should be discussed with the client. If the client indicates that he or she had just dropped the pill on the floor, was unable to pick it up but had replaced it with a new pill, there may be nothing wrong. But if a care worker starts to find pills on the floor more often he or she may need to check if the client is really still able to handle medication. However, a possible re-classification would, according to the speaker at the conference, always have to take place in cooperation with the client.

Interestingly, the definition of being a good professional dealing with medication safety therefore had shifted from 'controlling medication behavior and reporting (near-) errors' to 'reflecting within a professional discretionary space about which errors are problematic and which one are to be allowed within practices of medication safety and helping clients to realize when the time has come to hand over their responsibilities'. Though this is a beautiful instance of the

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[2] This is speculative since this project is not finished yet. But the speculation, when written down has unfortunately proven prophetic for the decubitus project, where all teams presented their project as a major success at the closing conference, while the outcome measurements of decubitus prevalence showed, what the programme leader of Care for Better called "a nuanced picture", indicating that some teams had actually experienced an increase in their decubitus prevalence.

risk of striving for full safety (Law 2000) and on the importance of accepting particular errors as part of the practice of medication safety, such complexities were of course by no means reflected in the indicators. Therefore, what may seem to be a 'best practice' in terms of the indicators, may be something quite different from practicing medication safety in the way that experts indicate is 'best' on other terms.

These observations signal that there are different definitions of what a best practice is, but that most definitions share that they see a best practice as a 'product' that has clearly quantified characteristics and clear processes and that is to be diffused to other places. It is this product definition with its strong focus on the best outcome that seems problematic in the light of the different targets for medication safety. This also means that it is impossible for us to identify the best practices that we want to study by looking only at their results.

In the evaluation we are trying to deal with this situation in different ways:
1) we are encouraging improvement project leaders to look for 'smarter' indicators that are better able to suit the complexities of the projects;
2) we are encouraging the improvement project leaders to (help us) articulate all the different results that are being achieved that are not reflected in good scores on pre-defined targets. This is taking shape in different ways like;
   a. helping teams define SMART targets for their own, adjusted goals;
   b. encouraging teams to set up portfolios to show what they are doing – and what may not always be reflected in performance targets.
3) we will select best practices on the basis of a mixed methodology of scores on performance targets, assessment by improvement project core team members and our own observations of teams during the working conferences.

Finally we are exploring the consequences of this definition of best practices as 'products' to also find out what the possible advantages would be of defining them in a more 'processual' manner.

## 5.11. Conclusions
In this chapter we have indicated some issues that occur at the program level. Whereas in the Breakthrough approach the 'methods' of improvement are rigorously separated from the 'interventions', we see that the Breakthrough method itself is intervening in strong ways in care practices. While this 'methodology' is supposed to merely structure the improvement process, it is actually part of the development of measurement infrastructures and is giving participants an optimistic feel about the possibilities to 'innovate'. We therefore see the program and its methods as an innovation in its own right, rather than a setting in which the real innovations in care practices can occur.

For this innovation to be effective, there seems to be a need for combining both methodological and content-based expertise. Although team leaders are highly satisfied with the methodological and content-based expertise of the core team, the results showed that less team leaders reported that the core team provided a practical set of improvement indicators to monitor results. The combination of

methodological and content-based expertise is all the more needed to come to smart indicators for quality improvement. Especially in the light of the difficulties with performance measurement in complex practices of care, we see a strong need for team leaders of quality collaboratives to dive into the complexities of the care practice they are intervening in, as well as into the complexities of the related measurement practices. Coming to indicators that suit the improvement practices requires much work – work that is not always acknowledged by statements like: "measuring = knowing". This quote, which is often encountered in quality improvement projects, disregards that knowledge practices and measurement practices need much alignment in order to work.

Team members perceive the Care for Better method as having a relative advantage, as being compatible with their existing values and experiences, trialable, and observable, and not difficult to learn and to implement. Interestingly, there seems to be a difference between the ease to 'work' with the improvement method and to 'achieving results' by means of the method. This difference indicates that the relative simplicity and the extent to which Breakthrough is 'packaged' is seen as helpful for working with the approach, which largely contributes to the success of the method. Defining the success of the method in terms of measuring the performance of Breakthrough on an outcome level would lead to quite a different idea about the success of the method. This is not to say that Breakthrough does not 'work' but that is seems to engender other results than merely improvement of outcomes, an issue we will return to in the next chapter.

In response to the question whether the project had a positive balance in costs and benefits, teams either scored low or were unable to answer this question (missing value). This finding indicates that the collaborative is mainly seen by improvement teams as quality improvement that is not necessarily linked to efficiency gains. This separation of quality and efficiency (rather than seeing efficiency as an integrated aspect of quality of care) is widely distributed throughout the collaborative. Most improvement projects therefore are rather loosely coupled to management agendas. We also see this in how sustainability is taking care of in the program. The issue of sustainability was not part of the approach right from the start, but was raised in a later stage at the last working conference. There was no focus on how interventions should perhaps look differently if they need to be sustained. The results from the end-measurement questionnaires showed that improvement teams were moderately taking care of this issue.

To conclude, for this intervention at the program level to work, a stronger coupling to management practices seems a prerequisite. This is clearly recognized by Vilans and by ZonMw, also through the reports of Sarah Fraser, but it still seems to be quite a struggle *how* to link the improvement practices to management practices. The rhetoric of designing, implementing and diffusing innovation seems to be partly responsible for this lack of actual management inclusion. This means that the innovations are often designed without taking the diffusion practices into account in design. This leads to business cases being developed after the fact and complaints about the lack of commitment of managers to quality improvement agendas. If development, implementation and diffusion would be seen as more interconnected practices, this would enable a more direct and continuous involvement by management and would also prevent many implementation and

sustainability problems, seeing 'spread' not as something that follows 'implementation'. It could also contribute to a more processual notion of quality improvement, which would be highly consequential for the study and practice of spreading best practices. This is a challenge that Vilans and ZonMw have taken up with the development of the 'improvement trajectories +' and their experiences with organization wide quality improvement will be valuable for further exploring this practical and conceptual conclusion.

# Chapter 6 Interventions and context at the improvement project level

As part of the Breakthrough method multidisciplinary teams are formed to execute the improvement trajectories. This chapter discusses the characteristics of these improvement teams, how they manage their local project and under which conditions. The results discussed in this chapter are based on the baseline and end-measurement questionnaires for improvement teams and on the observations of these teams during working conferences. The results are shown over all improvement projects together and for each improvement project separately to offer insight in improvement project-specific characteristics.

## 6.1. Composition of improvement teams

Within the Breakthrough method improvement teams are teams with three to five members that are temporarily formed to execute the improvement trajectory in their local setting. The ideas for changes in care processes of the improvement team are tested on a small scale on one or more pilot divisions. Existing teams on these pilot projects, referred to as pilot teams, actually implement these changes in client care processes.

Analyses of the questionnaires for improvement teams showed that the number of team members and the composition of each improvement team vary between improvement projects. In most cases two to three team members in the improvement team were also part of the pilot team actually implementing the changes in client care processes. In a few teams, this is for example the case in the Prevention of sexual abuse improvement project; an improvement team consisted of team leaders of several pilot teams. The baseline and end-measurement sample of team members consisted of 82% women. Almost 65% of these team members worked 29 or more hours per week and 67% had worked in the current organization for more than 5 years.

In table 6.1 an overview of the number of team members and composition for each improvement project is given. Team composition is operationalized as distribution of team members of several occupational groups. We used the classification of occupational groups developed by Prismant (Messchendorp 2002), which distinguishes (medical) assistants, nurses and caregivers, social workers and medical or social specialists, and in order to capture the broad range of positions across all layers of care organizations we added management, health policy and quality staff and para- or perimedical professionals as occupational groups. Since care organizations are stimulated to include clients as well in their improvement teams, we also created an occupational group including clients or client representatives.

Table 6.1. Team composition: percentage of team members in each occupational group
(T1 questionnaire team leaders)

| | Autonomy – Physically handicapped N=3 | Autonomy – Mentally handicapped N=7 | Autonomy – Residential Care Homes N=7 | Prevention Fall Incidents N=11 | Medication Safety N=19 | Problem Behavior N=8 | Decubitus ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 |
|---|---|---|---|---|---|---|---|---|---|
| *Number of team members* | | | | | | | | | |
| Average | 8 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 5 |
| Range | 6-10 | 3-9 | 3-9 | 4-10 | 3-9 | 4-7 | 4-10 | 3-10 | 3-8 |
| | | | | | | | | | |
| *Composition* | % | % | % | % | % | % | % | % | % |
| (medical) assistants | 43.5 | 12.5 | 23.8 | 2.9 | 2.9 | 4.3 | 9.3 | 26.1 | 19.4 |
| nurses & caregivers | 0 | 0 | 23.8 | 27.9 | 36.9 | 21.3 | 37.2 | 21.7 | 0 |
| social workers | 8.7 | 20 | 4.8 | 7.4 | 5.8 | 4.3 | 0 | 1.1 | 6.5 |
| medical/social specialists | 13.0 | 7.5 | 0 | 5.9 | 9.7 | 29.8 | 4.7 | 5.4 | 16.1 |
| management | 30.4 | 40 | 33.3 | 27.9 | 28.2 | 34.0 | 27.9 | 22.8 | 45.2 |
| health policy & quality staff | 4.3 | 5 | 4.8 | 5.9 | 10.7 | 0 | 4.7 | 3.3 | 6.5 |
| para-/perimedical professionals | 0 | 5 | 0 | 16.2 | 2.9 | 4.3 | 14.0 | 9.8 | 3.2 |
| clients | 0 | 10 | 9.5 | 5.9 | 2.9 | 2.1 | 2.3 | 9.8 | 3.2 |
| **Total number of team members over all teams** | 23 | 40 | 42 | 68 | 103 | 47 | 43 | 92 | 31 |

proportion of team members in each category (nr. team members in each group / total number of team members over all teams

In the Medication Safety project about 37% of the total number of team members over all teams (103) falls in the category nurses and caregivers. With an average number of five in each team this means that on average each team consists of two nurses or caregivers. About 30% of the team members of improvement teams participating in the Problem Behavior improvement project is a medical or social specialist, while this percentage is considerably lower in the other projects. The percentage of team members characterized as management varies between 22.8% and 45.2%. Since the names of management positions vary considerably between care organizations and between care sectors no clear distinction between lower, middle and higher management can be made, although higher management scales largely seem to be missing, in line with the findings reported in Chapter 5. In the improvement teams working on Eating and Drinking a nutrition counselor (nurses and caregivers) or dietitian (paramedical professional) were often part of the team. In the project on prevention of fall incidents peri- or paramedical professionals were most often occupational therapist or physiotherapist.

Although care organizations were asked to include a client (or client representative) in each improvement team only 25% of the improvement teams succeeded in this and the number of clients who actually participated in the working conferences is even much lower. Though we have not measured this, clients were hardly seen on the conferences observed. One of the overall goals of the autonomy projects is to give clients more autonomy in determining their quality of life. However, in only 17.6% of the improvement teams in the autonomy improvement projects (mentally handicapped, physically handicapped and residential care homes) clients are a member of the team. In the Autonomy improvement project in care for mentally handicapped one improvement team included three clients in their team. The other six improvement teams did not include a client. In the Autonomy improvement project in care for physically handicapped none of the improvement teams included a client in their team. In the Autonomy improvement project in residential care homes one improvement team included one client and one included three clients in their team. The other five improvement teams did not include a client.

These findings could easily be taken to indicate that the improvement project leaders have 'failed' in encouraging the institutions to include clients in their improvement teams, or that client participation simply needs to get further developed and once institutions get more familiar with it, they will start including clients in their improvement teams. But this may be jumping to conclusions. Though the numbers of teams that have clients as members are too small (n=28) to analyze significant trends, there is no trace of a correlation between teams who have a client member and institutions who have experience with forms of client participation. It therefore seems that there must be something else at stake here.

The aim of including a client in each team may not only be unpractical and therefore hard to realize, but may actually be unfitting for the program. In the Autonomy improvement project for the mentally handicapped, one of the working conferences was attended by a client who gave a presentation about the client board that she is chairing and that is set up as a separate Trust, loosely liaised to the care institution. In this presentation she was supported by an attendant, with whom she had carefully prepared the presentation, and who was asking her the questions that she would then answer. Whenever she was lost for words or did not understand the question, the attendant would indicate what the answer was that

they had rehearsed and the client would say: "Ah yes, of course", and carry on with the presentation.

In an inspiring and at times moving presentation, she explained how this Trust was set up since the client board that had been part of the care institution was absolutely unworkable for clients. When they were invited to join meetings of the Board, they had to work their way through piles of paper that was not written for them and was hard to understand. She also indicated that the speed of the meetings was way to fast. In their own Trust, the clients set their own agenda. The Board of the institution can suggest items for the agenda but these can simply be refused. They organize thematic meetings where they discuss only one topic and come with recommendations to the Board. Examples of such topics were e.g. moving patients and shower policy. In the first case there had been some commotion about the fact that clients were at times being moved to another room without their consent. This was seen as unacceptable by the clients and their recommendations resulted in new institute policy that prohibits the forced moving of clients. Clients have to give their consent. The discussion on shower policy came from questions about the practice of making male and female clients take showers together. This was equally deemed unacceptable by the client Trust and their recommendation resulted in a policy where clients had a right to privacy when showering. Another recent discussion, that had not resulted in new policy yet, was resistance to the proposed policy to prohibit cooking meals at the wards due to hygiene regulation. "Well, we informed the director that we find that very strange: you are also allowed to cook at home!"

This Trust seemed to be quite effective and truly empowered exactly because they had resisted the notion of 'participation'. As the speaker said: "We are unique: in other places you are allowed to participate…", indicating that they had needed to create their own space, with their own organizational structure, their own agenda, and not shaping the role of clients in terms of 'participation' in existing structures. Of course such an approach requires much support. They have coaches like the attendant who was with her at this meeting. One of these is a paid laborer and two such coaches are volunteers. She was indicating the importance of these coaches and the wish to have all coaches as paid employees. For now the funds for this are lacking. The money they do get, they receive from the institution and the "Friends of…" Trust. Further, though the speaker indicated that the Board needs to speak their language, rather than the other way around, the Trust also offers courses for clients, parents and attendants to stand up for their rights.

This telling and inspiring example indicates that the idea of including a client in the improvement team may at times be seen as a form of empowerment of clients, but at times may be simply an unworkable solution that does not address the issue of increasing the involvement of clients in the improvement of their care. At worst it can even be a frustrating experience for both clients and care professionals that does more harm than good. By no means we wish to conclude that client participation should not be encouraged, but there seem to be different ways of dealing with the involvement of clients in the improvement of their care that should be equally addressed and that may at times be more fitting. Such an assessment of what would be a good way to involve clients in care improvement should focus on:

1)  the type of clients – including mentally handicapped clients in the Autonomy improvement project team or in the team working on Problem Behavior probably is not the most appropriate method;
2)  the type of project – participation of clients is perhaps more likely in the case of the Eating and Drinking improvement project than in a project on the Prevention of Sexual Abuse.

This case further indicates that involving clients will always require substantial work by both the clients and the improvement team members and simply advocating its importance seems to be quite an inappropriate way of dealing with the complex issue of involving clients in improving care.

Following these assessment criteria, it will come as no surprise that in the Eating and Drinking improvement project we found a high percentage of improvement teams in which a client is included as a team member (53.3%). Eight of the fifteen team leaders participating in the Eating and Drinking improvement project reported to have at least one client in their improvement team.

For those improvement projects that are finished, changes in composition occurred in 68% of the improvement teams (see table 6.2). In 32% of the improvement teams a team member left the team and was replaced with a new team member. In 28% of the cases no replacement occurred. Such dynamics were therefore not only taking place at the level of the Care for Better management, but also in the improvement projects. Improvement project leaders spent much time on supporting teams to find good replacements for yet another pilot team leader who left etc. Such dynamics seemed 'normal' rather than exceptional; a finding that is hardly taken into account in studies of such collaboratives, although reported incidentally within the literature (Bate and Robert 2002).

Table 6.2. Stability of improvement teams
(T1 questionnaire team leaders)

|  | Decubitus Ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | Total N=28 |
|---|---|---|---|---|
| No changes | 2 (28.6%) | 5 (35.7%) | 1 (25.0%) | 8 (32.0%) |
| Replacement by other members | 2 (28.6%) | 4 (28.6%) | 2 (50.0%) | 8 (32.0%) |
| More team members | - | 1 (7.1%) | 1 (25.0%) | 2 (8.0%) |
| Less team members | 3 (42.9%) | 4 (28.6%) | - | 7 (28.0%) |

## 6.2. Project management of improvement teams

According to the plan of action of the Care for Better program, improvement teams are to attend the improvement project conferences organized by Vilans. For most projects these are divided into a kick-off meeting, two work conferences and one closing conference. On average team leaders reported that as a team they attended these conferences four times with on average two to three team members. In between the Care for Better conferences improvement teams are to plan, implement and test changes on their pilot division(s). For this purpose team members meet with their other team members within their local setting on a regular basis. On average team members of each improvement team meet one another one to two times per month (T1 questionnaire team leader). These meetings take on average one and a half hour per meeting.

Table 6.3. Attendance in conferences and meeting frequency
(T1 questionnaire team leaders)

|  | Decubitus Ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | **Total** **N=28** |
|---|---|---|---|---|
| *Attendance conferences* | Mean (SD) | Mean (SD) | Mean (SD) | Mean (SD) |
| Frequency | 3.57 (.79) | 3.62 (1.02) | 4.67 (1.37) | 4.11 (.96) |
| Average number of participants | 2.71 (.95) | 3.43 (1.27) | 2.67 (1.21) | 2.88 (1.03) |
|  |  |  |  |  |
| *Meeting frequency (per month)* | Mean (SD) | Mean (SD) | Mean (SD) | Mean (SD) |
| Average | 1.86 (1.86) | 1.29 (.59) | 1.83 (1.17) | 1.46 (1.10) |
| Range | 1 - 6 | 1 - 2 | 1 - 4 | 1 - 6 |
| Duration (hours per time) | 1.43 (.53) | 1.5 (.50) | 1.38 (.65) | 1.48 (.49) |

Participation in an improvement team is often an additional task for team members next to many other responsibilities and has consequences for how often improvement teams are able to meet and spend time on the improvement project. In some instances teams were shielded off somewhat from other activities to be able to work on their own project, but in other cases teams came to the working conferences apologizing that they had not done much in the last months due to some large scale policy change – be it the certification project for living up to HKZ standards or dramatic cuts resulting from the introduction of the new Act on societal support (WMO). We asked team leaders to indicate to what extent the board gave the improvement team members sufficient resources to do their tasks (Tables 6.4 and 6.5). With respect to available time, manpower and means, team leaders participating in the Prevention of sexual abuse improvement project reported the lowest scores. Only 33.3% reported to have sufficient available time and manpower. This shortage of organizational support for improvement teams participating in this improvement project is also shown in the low percentage of teams (16.7%) reporting to have had sufficient organizational support to run the project.

Table 6.4. Organizational support for the project
(T1 questionnaire team leaders)

| | Decubitus ulcers  N= 6 | Eating and Drinking  N=14 | Prevention sexual abuse  N= 6 | **Total**  **N=28** |
|---|---|---|---|---|
| Sufficient support during starting phase, during the project this <u>decreased</u> | - | 2 (14.3%) | 2 (33.3%) | 4 (14.3%) |
| Insufficient support during starting phase, during the project this increased | 1 (16.7%) | 2 (14.3%) | 2 (33.3%) | 5 (17.9%) |
| During the entire project there was sufficient support | 3 (50.0%) | 8 (57.1%) | 2 (33.3%) | 13 (46.4) |
| During the entire project there was insufficient support | 2 (33.3%) | 2 (14.3%) | - | 4 (15.4%) |

Table 6.5. Organizational support for improvement teams
(T1 questionnaire team leaders)

| | Decubitus ulcers  N=7 | | Eating and Drinking  N=15 | | Prevention sexual abuse  N=6 | | **Total**  **N=28** | |
|---|---|---|---|---|---|---|---|---|
| | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % |
| sufficient time | 4.57 (.79) | 71.4% | 5.20 (1.52) | 66.7% | 3.50 (1.38) | 33.3% | 4.68 (1.47) | 60.7% |
| sufficient manpower | 4.4 (.79) | 57.1% | 5.07 (1.16) | 60.0% | 4.17 (1.17) | 33.3% | 4.71 (1.12) | 53.6% |
| sufficient resources | 5.14 (.69) | 85.7% | 5.33 (1.04) | 80.0% | 4.33 (1.63) | 50.0% | 5.07 (1.15) | 75.0% |
| sufficient skills | 5.00 (.00) | 100% | 5.07 (.73) | 78.6% | 5.50 (.55) | 100% | 5.15 (.60) | 85.7% |
| sufficient training to execute the project | 3.86 (1.35) | 28.6% | 4.73 (1.33) | 66.7% | 5.33 (.82) | 83.3% | 4.64 (1.31) | 60.7% |
| organization provides freedom to take risks in order to improve | 5.00 (1.29) | 71.4% | 4.93 (1.16) | 60.0% | 4.17 (1.33) | 66.7% | 4.79 (1.23) | 64.3% |
| organization provides sufficient support to bring the project to a good end | 4.43 (.98) | 42.9% | 4.80 (1.52) | 60.0% | 3.67 (1.03) | 16.7% | 4.46 (1.35) | 46.4% |

5-point scale ranging from 1) totally disagree to 5) totally agree; % agree, answer categories 4 and 5

To succeed in their task and to be effective in implementing changes and to improve care organizational support is seen to be essential for improvement teams (Rogers, 1995; Ovretveit, et al. 2002; Plsek 2003). In the end-measurement questionnaire team leaders were asked to what extent they were encouraged and supported by the board of their organization. About 13 (46%) of the team leaders reported to have had sufficient support of the board during the entire project, whereas 4 (15%) team leaders reported to have insufficient support during the entire project. Table 6.6 shows to what extent team leaders felt supported by the board on more specific aspects. Only 18% of the team leaders agreed that the board acted as a coach of the improvement team and only 25% of the team leaders agreed that the board motivated employees to improve care. This further illustrates the lack of participation of higher management that was raised in chapter 5.

Table 6.6. Organizational support of the board
(T1 questionnaire team leaders)

| The board … | Decubitus ulcers N= 7 | | Eating and Drinking N=15 | | Prevention sexual abuse N= 6 | | Total N=28 | |
|---|---|---|---|---|---|---|---|---|
| | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % |
| encourages improvement* | 3.86 (.69) | 71.4 | 3.87 (1.06) | 66.7 | 3.33 (1.21) | 66.7 | 3.75 (1.00) | 67.9 |
| provides preconditions to improve.* | 3.29 (.76) | 85.7 | 3.53 (.99) | 60.0 | 2.83 (1.17) | 33.3 | 3.32 (.98) | 50.0 |
| paid attention to our activities | 4.29 (1.38) | 57.1 | 4.73 (1.79) | 66.7 | 4.00 (2.09) | 50.0 | 4.46 (1.73) | 60.7 |
| acted as a coach | 2.43 (.98) | 0.0 | 3.33 (1.91) | 26.7 | 3.00 (1.79) | 16.7 | 3.04 (1.69) | 17.9 |
| motivated employees to improve care | 3.00 (1.41) | 14.3 | 3.67 (1.59) | 26.7 | 3.17 (1.94) | 33.3 | 3.39 (1.59) | 25.0 |
| I could go to the board with personal problems | 4.86 (1.07) | 57.1 | 4.07 (2.09) | 46.7 | 3.17 (2.40) | 33.3 | 4.07 (1.98) | 46.4 |
| gave useful feedback on our activities | 4.00 (1.15) | 42.9 | 4.00 (2.04) | 46.7 | 4.00 (2.19) | 50.0 | 4.00 (1.83) | 46.4 |
| was open for criticism | 4.14 (.90) | 42.9 | 4.71 (1.44) | 64.3 | 4.17 (2.23) | 66.7 | 4.44 (1.50) | 57.1 |
| gave us time to reflect on our activities | 4.57 (.79) | 42.9 | 4.73 (1.67) | 53.3 | 4.00 (2.37) | 50.0 | 4.54 (1.64) | 50.0 |
| gave us time to try new methods | 5.00 (.82) | 71.4 | 5.00 (1.31) | 60.0 | 4.50 (2.07) | 50.0 | 4.89 (1.37) | 60.7 |
| I'm satisfied with the way the board treated our improvement team | 4.14 (1.34) | 42.9 | 4.53 (1.81) | 53.3 | 4.00 (2.28) | 33.3 | 4.32 (1.76) | 46.4 |

*5-point scale, all other items 7-point scale (1) totally disagree to (7) totally agree, with (4) nor disagree, nor agree.
% agree, answer categories 4 and 5 or in case of 7-point scale 5, 6 and 7

Variation in effectiveness of teams in quality improvement collaboratives can be attributed to factors on various levels (Cretin et al. 2004, Gordon et al 1996, Shortell et al 1998). At the level of the care organization, the organizational theory literature in health care settings suggests that the organizational culture may have influence on how effective teams are (Hackman, 1990; Shortell, 2000; Shortell, 2004; Lemieux-Charles, 2006). Within our evaluation framework organizational culture is operationalized according to the competing values framework (Quinn, 1983; Zammuto, 1999). Team members were asked to distribute 100 points across 4 sets of organizational statements according to the descriptions that best fit their own organization. Culture is the extent to which organizations value and emphasize such factors as teamwork and participation (group culture); risk-taking, innovation, and change (developmental culture); rules, regulations, and bureaucracy (hierarchical culture); and efficiency, goal attainment, and achievement (rational culture).

With regard to aspects as leadership team members often perceive their organization as having a hierarchical culture (see table 6.7). This is also seen on the working conferences where teams at times refer rather a-specifically to 'the management' that is generally not doing what they would like it to do and is seen as hampering teams in their improvement work. However, according to most team members rewards are fairly equally distributed among employees within the care organization, which is characteristic for a group culture. On the aspects of the character of the organization, cohesion between employees and the emphasis of the organization team members distributed most points to group culture. Overall, about 42% of the team members perceived their care organization as having a group culture. Developmental and hierarchical cultures were reported by respectively 21 and 22% of the team members. These differences were at times striking during the working conferences. Where on one table a team could be creatively working, other teams were less inspired and only saw problems, no solutions. During a working conference on Problem Behavior, one of the researchers asked one of the members of the core team what would be an interesting team to observe during a Team Time session. The core team member pointed in the direction of one of the tables and said she was quite curious what we would find there. It turned out that the team at this table was radiating a complete lack of motivation, pointing out to the fact that they were simply in such an old building, which was the real problem, and which left nothing for them to be done. Though the core team had already invested much time in the supervision of this team, it was hard to imaging that they would come to substantial improvements. Finally, team members least reported a rational culture with 15%. This also explains why the improvement project leaders have such a hard time developing measurement infrastructures as mentioned in chapter 5.

According to Ferlie and Shortell (2001), developing a culture that emphasizes learning, teamwork, and customer focus is crucial if significant progress in quality improvement is to be made. Assumingly, the key success factor in the effectiveness of quality collaboratives is the existence and development of an innovative culture that enhances the implementation and sustainability of health care innovations. Since Care for Better is also expected to bring about cultural change within care organizations we test differences in organizational culture between the T0 and T1 sample with Student's T-tests. For none of the four

cultures, nor for the dominant culture type differences between the two samples were found. In the upcoming year data on T0 and T1 will be available for several improvement projects, which allows us to analyze whether and which cultural changes were perceived by participating team members.

We further analyze how this notion of a culture of improvement is related to the content of the improvement. Such specificity is often lacking (as in (Ferlie and Shortell 2001)) but for all the classical organizational change themes we see the need to specify these in relation to the issue at stake. An organizational culture that is supporting quality improvement may look very different when improving the Prevention of Decubitus ulcers than when improving the Prevention of Problem Behavior. In the first case, a focus on 'learning and teamwork' may be less appropriate than the more managerial characteristics of what in the competing values framework is called a rational culture. In the latter case a group culture, with space for learning may be more important. Similarly, what good management involvement and leadership is, is highly dependent on the issue at stake: the prevention of decubitus ulcers may require a more managerial focus on performance management and clear targets, whereas the prevention of problem behavior may require space to reflect, which makes the role of managers one of protecting the improvement teams from disturbing factors like efficiency programs in the institution or new regulation from the ministry.

Table 6.7. Distribution of 100 points across four types of organisational culture
(T0 and T1 questionnaire team members)

| | Overall | | Character | | Leadership | | Cohesion | | Emphasis | | Rewarding | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Group culture | 30.0 | 17.8 | 31.0 | 26.5 | 20.7 | 18.5 | 29.4 | 24.7 | 27.2 | 21.1 | 42.1 | 33.4 |
| Developmental culture | 23.7 | 12.6 | 25.6 | 21.8 | 26.9 | 18.7 | 23.6 | 20.6 | 25.7 | 18.6 | 16.7 | 16.6 |
| Hierarchical culture | 24.5 | 15.1 | 24.6 | 23.4 | 30.6 | 25.9 | 23.9 | 20.8 | 23.7 | 19.0 | 19.5 | 24.2 |
| Rational culture | 21.9 | 11.5 | 19.7 | 20.6 | 21.7 | 17.3 | 23.1 | 19.4 | 23.4 | 19.8 | 21.6 | 19.8 |

In addition to this exploration of the relation between supportive culture and the content of care improvement, and to the above-mentioned general assessment of organizational culture, a translated Dutch version of the Group Innovation Inventory - 36 items (Caldwell and O'Reilly,2002) was used to assess more specific aspects of an innovative culture. According to Caldwell and O'Reilly four dimensions can be distinguished: support for risk taking, tolerance of mistakes, teamwork and speed of action. At the moment the psychometric properties of this Dutch version adjusted for improvement teams is analyzed in order to shorten the list of items. Preliminary descriptive results for all 36 items are shown in Appendix Table A.6.5. Interesting to report is that team members often agree with the statement that mistakes are a normal part of trying something new (90.1%), however, only 25.8% of the team members agree with the statement that risk taking is encouraged in the organization.

At the team level, team leadership, goal specificity, goal agreement and team functioning may determine a team's effectiveness. In the T1 questionnaire for improvement teams, team members were asked to answer 18 statements on how well their team functioned on aspects as helping each other, reaching consensus on project goals, participation in decision-making and problem-solving and skills of team members (based on team effectiveness instrument of Lemieux-Charles, 2006). On a 7-point scale ranging from 1) totally disagree to 7) totally agree, team members rated their overall team functioning and perceived team skills with an average just above 5. For participation and goal agreement this was on average slightly higher (see Table 6.8).

Table 6.8. Functioning of the improvement teams
(T1 questionnaire team members)

|  | Decubitus Ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | **Total** N=83 |
|---|---|---|---|---|
| Overall team functioning | 5.14 (.58) | 5.36 (.62) | 5.41 (.93) | 5.32 (.69) |
| Perceived team skill | 5.14 (.67) | 5.18 (.69) | 5.27 (1.14) | 5.19 (.80) |
| Perceived participation and goal agreement | 5.35 (.71) | 5.90 (.63) | 5.68 (1.00) | 5.71 (.76) |

**6.3. Improvement teams and measuring**
To investigate to what extent improvement teams were capable of organizing the required measurement infrastructure we asked team leaders and other team members of finished projects to provide information on this. Table 6.9 shows the frequency of measurement of improvement teams in each of the finished projects. Tables 6.10 to 6.12 show the extent to which improvement teams monitored their progress.

In the decubitus ulcers project three central measurement points were organized by the National Expertise center for Nursing and Caring (Dutch: Landelijk Expertisecentrum Verpleging en Verzorging, LEVV), at baseline, mid-term and by the end of the project. For these measurements, teams were asked to measure three times a week for four successive weeks. In addition, teams could perform their own measurements to monitor progress.

In the Eating and Drinking project two central measurement points were organized by the National Prevalence measurement of Care problems (Dutch: Landelijke Prevalentiemeting Zorgproblemen, LPZ), in April 2006 and April 2007. One team in this improvement project only participated in those measurements. The other teams also performed their own measurements on weighing clients and assessing ambiance during the project.

Table 6.9. Frequency of performed measurements
(T1 questionnaire team leaders)

| | Decubitus ulcers | | Eating and Drinking | | Prevention sexual abuse | |
|---|---|---|---|---|---|---|
| | N | Valid % | N | Valid % | N | Valid % |
| not | 1 | 16.7 | - | - | - | - |
| daily | 2 | 33.3 | 5 | 35.7 | - | - |
| once a week | - | - | 1 | 7.1 | - | - |
| twice a week | - | - | 1 | 7.1 | - | - |
| once a month | 1 | 16.7 | 6 | 42.9 | 6 | 100.0 |
| twice a month | 1 | 16.7 | - | - | - | - |
| once in 3 months | 1 | 16.7 | - | - | - | - |
| three times a year | 1 | 16.7 | - | - | - | - |
| twice in a year | - | - | 1 | 7.1 | - | - |
| *Total* | *6* | *100.* | *14* | *100.0* | *6* | *100.0* |
| Missing | 1 | | 1 | | 0 | |
| Total | 7 | | 15 | | 6 | |

Table 6.10 shows that about 78% of the team leaders reported that progress was continuously monitored. Information to monitor progress was continuously available and accurate for 85% of the improvement teams.

Table 6.10. Monitoring
(T1 questionnaire team leaders)

| | Decubitus ulcers N = 7 | | Eating and Drinking N =15 | | Prevention sexual abuse N = 6 | | **Total** **N=28** | |
|---|---|---|---|---|---|---|---|---|
| | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % |
| Progress was continuously monitored | 5.17 (.98) | 66.7 | 5.47 (1.06) | 80.0 | 5.83 (1.17) | 83.3 | 5.48 (1.05) | 77.8 |
| Timely and accurate information on progress was constantly available | 5.33 (.52) | 100.0 | 5.07 (1.39) | 73.3 | 5.60 (1.14) | 80.0 | 5.23 (1.18) | 84.6 |

Since informing primary care professionals on progress in outcomes is deemed crucial in running PDSA cycles and to test changes, also information on feedback of information on progress was collected. About 96% of the team leaders reported that progress was made visible to their pilot divisions, 65% to other divisions, and 46% to external parties (see Table 6.11).

Table 6.11. Making progress visible
(T1 questionnaire team leaders)

| Progress was made visible for ... | Decubitus ulcers N = 7 | | Eating and Drinking N =15 | | Prevention sexual abuse N = 6 | | Total N=28 | |
|---|---|---|---|---|---|---|---|---|
| | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % |
| our own pilot division(s) | 4.40 (1.94) | 80.0 | 5.80 (.56) | 100.0 | 6.00 (.89) | 66.7 | 5.81 (.75) | 96.2 |
| other divisions in our organization | 4.00 (1.87) | 80.0 | 4.80 (1.78) | 60.0 | 4.83 (1.72) | 66.7 | 4.73 (1.73) | 65.4 |
| external parties | 3.50 (3.51) | 40.0 | 3.93 (1.83) | 46.7 | 3.67 (2.66) | 50.0 | 3.88 (1.97) | 46.2 |

7-points scale ranging from totally disagree (1) to totally agree (7)
% = score 5, 6 or 7

Table 6.12 shows the importance respondents ascribe to measuring indicators for improvement teams. About 96% of the team leaders agree with the statement that measurement is helpful in monitoring progress and 85% also made clear agreements on this. To monitor progress, steer performance and to provide primary health professionals with timely and accurate information on progress, improvement teams need to have an accurate information system. ICT-facilities are important means to make progress results visible with run-charts and other applications. Overall, about 63% of the team leaders reported to have sufficient ICT-facilities to monitor progress. Especially within improvement teams working on Decubitus ulcers team leaders reported to have insufficient ICT-facilities, only 17% (i.e. 1 team in this case) reported to have sufficient ICT-facilities. Four of the other team leaders reported to have insufficient ICT-facilities, which may be related to the fact that these all concern improvement teams of nursing homes and residential care homes. It may however also indicate that decubitus ulcers are already reported and registered as a direct part of the primary care process, in which ICT may be lacking. This would be an important issue for other projects for they may run into similar problems at a later stage.

Table 6.12. Measurement infrastructure
(T1 questionnaire team leaders)

| | Decubitus ulcers N = 7 | | Eating and Drinking N =15 | | Prevention sexual abuse N = 6 | | Total N=28 | |
|---|---|---|---|---|---|---|---|---|
| | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % | Mean (SD) | % |
| measuring is helpful in monitoring progress | 5.83 (1.17) | 66.7 | 6.13 (.64) | 100.0 | 5.83 (.75) | 100.0 | 6.00 (.78) | 96.3 |
| clear agreements about measuring central indicators | 5.50 (.55) | 100.0 | 5.64 (1.22) | 78.6 | 5.50 (1.05) | 83.3 | 5.58 (1.02) | 84.6 |
| sufficient ICT-facilities for monitoring progress | 2.50 (2.07) | 16.7 | 4.73 (1.83) | 66.7 | 5.67 (.82) | 100.0 | 4.44 (2.01) | 63.0 |
| We worked with the PDSA improvement cycle | 4.25 (2.22) | 50.0 | 5.13 (1.30) | 80.0 | 5.67 (.82) | 100.0 | 5.12 (1.39) | 80.0 |

7-points scale ranging from totally disagree (1) to totally agree (7)
% = score 5, 6 or 7

The measurement is complicated by a general lack of measuring expertise and ICT infrastructure. It is further complicated by the fact that targets and goals are often not stable, an issue we return to in chapter 7.

## 6.4. Concluding remarks

As our analysis indicates, the composition of the teams is not exactly as it was expected to be. Client participation in the improvement team was realised by most teams working on Eating and Drinking and Autonomy for mentally handicapped and residential care homes, but for other teams this and improvement projects this was still a difficult issue. Also the involvement of higher management varied considerably between improvement projects. Though there were many managers on the teams, these seemed to be team leaders, rather than middle or top managers. Further, the organizational cultures that we attribute to the teams on the basis of their response to the questionnaires are not always seen as supportive to the chances for success of the project.

As we have tried to point out, we do not however simply follow the idea that clients should be members of all teams, management should be supportive in the same manner for all projects or that there is one organizational culture that would be more supportive for all projects. We rather want to argue for a re-specification of all these matters in relation to the actual practices of improvement and the content of the themes. Client involvement in improving care may – perhaps should – look substantially different in different settings, dependent on the issue at stake and the type of clients. Simply arguing for client participation in improvement teams may at times be worthwhile and at other times lead to frustrating experiences for clients and care providers. In such cases, alternative ways of articulating client perspectives might be looked for.

And what counts for *client* participation of course also applies to *management* participation. A lack of management participation was not only shown in a low number of managers participating in improvement teams for most improvement projects, but also in the extent to which teams received organisational support. Higher management was lacking in motivating employees and acting as a coach of the improvement team. The absence of higher management in improvement teams may at times be seen as a problem and at times the involvement of higher management may be accomplished through other means, e.g. by developing more managerial aspects of quality improvement like business cases.

Most improvement teams perceived their organisations as having a group culture. Only with regard to the aspect of leadership they perceived their organisation as having a hierarchical culture. Though the teams tend to a group culture, which is seen as supportive for experimenting and improving, hierarchies are seen by improvement teams as limiting their activities. With regard to the presence of an innovative culture our preliminary psychometric analyses showed that within care organisations the concepts of support for risk taking and tolerance of mistakes may have a different meaning than it it has for different sectors. For the purpose of investigating whether an innovative culture has been developed within participating care organisations, these aspects may have to be reconceptualized. Finally, we are starting to explore how different characteristics of organizational culture play out differently for different themes of improvement.

These are questions we can of course only further address when we start connecting the practices of participation and characteristics of organizational cultures to the progress and results of improvement teams. This is what we will now turn to.

# Chapter 7 Preliminary effects of first finished projects

This chapter describes the interventions and results of the first finished improvement projects at the team level. The completed projects concern those on Decubitus ulcers, Eating & drinking and Prevention of sexual abuse. A short description of the theme of each project and the general and specific goals is given. Furthermore, based on the end-measurement (T1) questionnaire for team leaders an overview of executed interventions of the improvement teams is given. In the description of the effects of the projects three parts are distinguished: 1) effects based on outcome indicators (objective effectiveness), 2) positive and negative effects as perceived by all team members and 3) perceived effectiveness as operationalised by Lemieux-Charles (2002).

Unfortunately, the original data to describe the effects based on outcome indicators (objective effectiveness) were not available to the evaluation researcher. For this description analyses conducted by external parties that own the original data were used. Information on reliability and validity of these results are therefore not garanteed by the evaluation researchers. The other results described in this chapter are based on the T1 questionnaire.

## 7.1. Decubitus ulcers improvement project

### 7.1.1. Short description of Decubitus ulcers improvement project

A decubitus ulcer, also referred to as pressure ulcer or pressure sore, is an injury to the skin and the tissue under it. According to the Dutch Decubitus Ulcers guidelines of the CBO (2002) decubitus ulcers can be described as tissue breakdown, caused by the effect of pressure, friction or shear forces on the body. Decubitus ulcers often develop on bony prominences, such as sacrum, coccyx, ischial tuberosities, greater trochanter and heel. Bone pressure on the tissue and skin that cover it causes a decrease in blood supply to the tissue, which is no longer receiving oxygen and nutrients and starts to break down. These ulcers, as well as other wound types, are classified in four stages according to the severity of the wound (European Pressure Ulcer Advisory Panel 1998). The development of decubitus ulcers is often related to comorbid conditions, especially those resulting in immobility or reduced tissue perfusion (Thomas 2001), and most often leads to physical complaints. These painful tissue injuries do not heal without treatment for a prolonged period of time. In the acute phase clients suffer from inflammation symptoms and in the long-term they suffer from less mobility and less social participation, among other things caused by the unpleasant smell of the injury.

The study of the European Pressure Ulcer Advisory Panel (Bours, Halfens, and Wansink 2002) shows that the prevalence of decubitus ulcers in the Netherlands is comparable to other European countries. The annual National Prevalence Measurement Care Problems of 2004 showed that the prevalence of decubitus ulcers varied from 14.4% in university hospitals to 31.7% in nursing homes (Halfens and Wansink 2004). In residential nursing homes and home care these

percentages are 16.4% and 15%, respectively. Prevention and treatment of decubitus ulcers includes recognizing clients at risk, decreasing the effects of pressure (e.g. by pressure-relieving devices and turning), assessing nutritional status, avoiding excessive bed rest, and preserving the integrity of the skin (wound therapy). Since the development and further deterioration of decubitus ulcers can most often be prevented by primary and secondary preventive measures, and since Decubitus rates are believed to be representative for the organisation of such measures within healthcare organisations, the prevalence of decubitus ulcers is increasingly used as an indicator of quality of care (e.g. by the Dutch healthcare Inspectorate).

According to the Plan of action the Decubitus ulcers improvement project has the following goals:
1. At least 45 divisions or improvement teams of care organizations participated in the improvement project Decubitus ulcers by the end of the Care for Better program.
2. At least 70% of the participating improvement teams realized a substantial improvement in care for decubitus ulcers by the end of the project.
3. At least 70% of the participating improvement teams applies the improvement method to other divisions or teams
4. At least 50% of the clients or informal caregivers on the participating pilot division(s) know how to prevent the development of decubitus ulcers.
5. At least 50% of the participating improvement teams apply one of the principles for improving care for decubitus ulcers.
6. At least 50% of all care organizations know the Care for Better Decubitus ulcers project by the end of the program.

In addition to the goals at the improvement project level, the following specific goals for improvement teams were formulated:
1. Decrease of prevalence and incidence of decubitus ulcers with 50% by the end of the project.
2. By the end of the project 60% of clients and/or informal caregivers and 90% of the nursing and care professionals knows the risks of decubitus ulcers and three ways to prevent it.

*Number of participating teams*
Two rounds of this improvement project have been finished until now. In the first round 7 improvement teams initially started. However, one team discontinued due to reorganization and lack of time on the part of the team leader. At the end 6 teams participated with 14 pilot divisions during the entire improvement project. In the second round 9 improvement teams with at the start 16 and by the end 18 pilot divisions participated. In the third and last round 10 improvement teams with 15 pilot divisions participate and they are finished in November 2007. Over these three rounds a total of 25 improvement teams with 47 divisions finished the improvement project.

As mentioned in chapter 3, the T1 questionnaire for improvement teams in the decubitus ulcers project was sent 5 months after the closing conference of the first round and 1 month after the closing conference of the second round. This resulted in a lower response to the questionnaire. Of the 16 teams participating in these two rounds, only 7 team leaders (44%) and 14 team members filled in the T1

questionnaire. In case questionnaires did not return by post, team leaders were contacted by telephone and asked to fill in the questionnaire. Several call attempts were made and in case we could not reach the team leader a reminder was sent. Unfortunately, these teams could not be informed about our evaluation study at the time of their participation in the collaborative and this may have resulted in a lower response. Furthermore, several of the team leaders were relocated in the care organizations and difficult to trace. Questionnaires for teams participating in the third round are at this moment collected and were not included in the analyses.

## 7.1.2. Executed activities in Decubitus ulcers projects

In the first phase of the improvement project, improvement teams were asked to analyse the strong and weak points concerning the care for decubitus ulcers in their pilot divisions. One of the main problems improvement teams ran into was the lack of knowledge of health professional on recognizing decubitus ulcers and the severity or degree of decubitus ulcers. As to the prevention and treatment of ulcers, pilot divisions often used ineffective and sometimes harmful measures. Ineffective measures are, for example, using measures as sheepskin, blow-drying and ice packing. Before the early 1990s some of these ineffective measures were seen as effective, but studies since then have shown that they are not (see CBO 2002).

Which activities were executed as part of the improvement project is shown in Table 7.1. Education of health professionals was done by most teams by organising clinical lessons and by giving instructions on how to register clients at risk and how to recognize the severity of the ulcers by using risk inventory cards and pictures of ulcers degree 1 to 4. At the conferences of the improvement project and through exchange on the extranet forum improvement teams received examples of these risk inventory cards and pictures.

Four out of seven teams updated their protocol with the newest effective measures and removed ineffective measures from their protocol. Three of the seven teams followed their decubitus ulcers protocol better since Care for Better, and one team started following their protocol since Care for Better. Effective measures such as turning clients regularly was done better now by four teams.

Table 7.1. Executed activities of teams participating in Decubitus ulcers
(T1 questionnaire team leaders n=7)

| Activities for decubitus ulcers... | we do not do this | we already did this | since CfB better | new since CfB |
|---|---|---|---|---|
| *General* | | | | |
| - working according to decubitus ulcers protocol | - | 3 (42.9%) | 3 (42.9%) | 1 (14.3%) |
| - actualising decubitus ulcers protocol (adding or removing ineffective preventive measures) | - | 3 (42.9%) | 4 (57.1%) | - |
| *Instruction and education* | | | | |
| - clinical lessons on decubitus ulcers | 1 (14.3%) | 4 (57.1%) | 2 (28.6%) | - |
| - providing information and instruction to employees on measurement instruments | - | 3 (42.9%) | 1 (14.3%) | 3 (42.9%) |
| - providing an information brochure to clients | 1 (14.3%) | 1 (14.3%) | 2 (28.6%) | 3 (42.9%) |
| *Specific activities* | | | | |
| - involve a decubitus ulcers counselor/specialist | 3 (42.9%) | 1 (14.3%) | 1 (14.3%) | 2 (28.6%) |
| - encourage employees to address one another on their performance | - | 5 (71.4%) | 2 (28.6%) | - |
| - risk inventory for each client | 1 (14.3%) | 2 (28.6%) | 3 (42.9%) | 1 (14.3%) |
| - stock inventory of decubitus ulcers mattresses | - | 6 (85.7%) | 1 (14.3%) | - |
| - turning | - | 3 (42.9%) | 4 (57.1%) | - |
| - skin protection treatment | - | 3 (42.9%) | 4 (57.1%) | - |
| - involve occupational or physiotherapist | - | 5 (71.4%) | 2 (28.6%) | - |
| - structural measuring | 1 (14.3%) | 2 (28.6%) | 2 (28.6%) | 2 (28.6%) |
| - note of executed actions in medical record of clients | - | 3 (42.9%) | 3 (42.9%) | 1 (14.3%) |
| | | | | |
| Activities for (medical) professionals... | | | | |
| - internal visitation | 3 (50.0%) | 2 (33.3%) | 1 (16.7%) | - |
| - mirror conversations | 5 (83.3%) | 1 (16.7%) | - | - |
| - registrations of complications | 2 (33.3%) | 3 (50.0%) | 1 (16.7%) | - |
| - Registration Incidents Clients | 5 (83.3%) | 1 (16.7%) | - | - |
| Activities for participation of clients... | | | | |
| - electronic feedback for clients | 6 (100.0%) | - | - | - |
| - written feedback for clients | 1 (16.7%) | 5 (83.3%) | - | - |
| - mirror conversations | 5 (83.3%) | 1 (16.7%) | - | - |
| - focusgroups | 6 (100.0%) | - | - | - |
| - involving clients- and consumer platforms | 2 (40.0%) | 3 (60.0%) | - | - |
| - client satisfaction registration | - | 6 (100.0%) | - | - |
| - client needs registration | 1 (20.0%) | 4 (80.0%) | - | - |

One of the improved activities or new activities since Care for Better that was mentioned by 5 of the 7 teams was providing an information brochure to clients. Vilans and the National Expertise Centre for Nursing and Caring developed a brochure for this purpose, which was provided to the improvement teams and could be adjusted for their own pilot divisions. Risk inventory for clients was done better now by three teams and for one team this was new. Structural measurement of decubitus ulcers was done for the first time in two teams, in two teams this was done better now, and two teams were already measuring decubitus rates before entering the collaborative. Although improvement teams were asked to register and collect data at baseline, in between and by the end of the project, one team did not structurally measure. Risk inventory and structural measurement were not only important in the prevention of ulcers, but functioned as an educational method for caregivers as well. Through risk inventory and measurement, health professionals learned how to assess clients at risk and how to recognize the degree of decubitus ulcers. Participating in this improvement project did not lead to reported changes in the other activities for medical professionals and participation of clients.

### 7.1.3. Results of improvement teams in Decubitus ulcers project

*Objective outcomes*
At this stage of the evaluation study no original data on process and outcome indicators are available to the evaluation researchers due to negotiations with external parties about availability of data files. The results presented in this section are based on analyses done by external parties and therefore the reliability and validity of these results are unknown to the evaluation researchers.

Table 7.2 shows the incidence of decubitus ulcers degree 2 and higher of all participating improvement teams that are included in the database at baseline, intermediate and end measurement. Six of the 15 improvement teams (40%) were able to bring the incidence of decubitus ulcers degree 2 and higher down with 50% or more. Four teams were able to decrease incidence with 20 to 50%. In one team incidence remained equal and in three teams the incidence increased between baseline and end measurement. These last three teams had relatively low baseline incidence (between 3.4 and 5.6%), which should be taken into account in interpreting these results.

Improvement teams were also asked to collect data on process indicators. These were assessed with the number of clients for whom ineffective and harmful preventive measures were undertaken. Unfortunately at the moment only data on the number of clients receiving these measures was available and no percentages (see Appendices A7.1. and A7.2.). The results of five teams showed a decrease in the number of clients receiving ineffective measures, whereas the results of seven teams showed an increase. With regard to harmful preventive measures 6 improvement teams decreased the number of clients receiving these measures, whereas 5 teams increased this number. Of the other teams incomplete data were available. Although in most improvement teams, health professionals received education on effective and ineffective measures, the increase in ineffective and harmful preventive measure may be due to a lack of knowledge on this by some professionals. Due to the fact that more attention is paid to decubitus, those professionals with a longer working experience may fall back on their old

knowledge on preventive measures without knowing that some of these measures are now seen as ineffective.

Table 7.2. Incidence of decubitus ulcers degree 2 and higher (percentages)
(analyses done by LEVV)

| Team | Baseline Measurement = T0 | Intermediate measurement | End Measurement = T1 | Absolute difference between end and baseline (T1 – T0) | Relative difference between end and baseline ((T1 – T0)/T0)*100 |
|---|---|---|---|---|---|
| 1 | 16.0 | 8.3 | 12.5 | -3.5 | -21.9 |
| 2 | 5.4 | 6.3 | 4.3 | -1.1 | -20.4 |
| 3 | 13.0 | 19.0 | 18.8 | -5.8 | -44.6 |
| 4 | 29.0 | 5.6 | 11.5 | -17.5 | -60.3 |
| 5 | 5.6 | 3.8 | 8.3 | +2.7 | +48.2 |
| 6 | 11.1 | 3.8 | 0.0 | -11.1 | -100.0 |
| 7 | 6,6 | 3,2 | 0,0 | -6.6 | -100.0 |
| 8 | 0,0 | 3,6 | 0,0 | - | - |
| 9 | 3,4 | 11,7 | 10,0 | +6.6 | +194.1 |
| 10 | 7,1 | 2,1 | 4,0 | -3.1 | -43.7 |
| 11 | 4,8 | 0,0 | 0,0 | -4.8 | -100.0 |
| 12 | 23,4 | 26,1 | 6,7 | -16.7 | -71.4 |
| 13 | 0,0 | 7,1 | 7,1 | +7.1 | - |
| 14 | 5,3 | 1,0 | 10,7 | +5.4 | +101.9 |
| 15 | 9,4 | 5,9 | 0,0 | -9.4 | -100.0 |

*Positive and negative effects*
Team members were asked to indicate which positive or negative effects they experienced as a result of the project (see Table 7.3). About 67% reported that as a result of the project their focus was more directed towards clients and 65% experienced an increase in satisfaction of clients. Most team members indicated that an increase in satisfaction of employees was realised or at least is expected. Around 40% experienced positive effects with respect to better steering of results and a better profiling of their division(s), the other team members expected this to occur as a result of the project in the near future. As part of their interventions some teams ordered new decubitus ulcers mattresses and new wound material. Initially this leads to an increase in costs, however, on the long-term these interventions may lead to cost savings by preventing clients from developing ulcers. Twenty percent reported an increase in costs as result of the project; however, 65% expected that cost savings within their divisions will occur in the future.

Whether indeed an increase in costs occurred is difficult to verify. Our questions about costs of education and material were hardly filled out by team leaders. We asked team leaders to indicate to what extent the changes made in processes of care led to changes in time spent per client. Four team leaders reported that equal time was spent, one team leader reported that employees spent 5 minutes per week per client more than before and one team leader did not fill out this question.

Although 57.1% of the team members experienced an increase in workload, 18.8% experience an increase in productivity and 50% expected this for the near future. Two team members reported that as a result of the project less attention was paid to the transfer of clients to and from other care organisations.

Table 7.3. Perceived positive and negative effects Decubitus ulcers
(T1 questionnaire team members n=21)

|  | not realised | | realised |
| --- | --- | --- | --- |
| **Positive effects** | not expected | is expected | |
| Clients | | | |
| - increase focus on client | 2  (9.5%) | 5 (23.8%) | 14 (66.7%) |
| - increase in client satisfaction | 2 (10.0%) | 5 (25.0%) | 13 (65.0%) |
| | | | |
| Employees on pilotdivision(s) | | | |
| - increase satisfaction employees | 2 (9.5%) | 6 (28.6%) | 12 (57.1%) |
| - increase involvement of employees | - | 5 (23.8%) | 15 (71.4%) |
| - enthusiasm about working with Breakthrough method | 4 (19.0%) | 5 (23.8%) | 11 (52.4%) |
| - more clarity about division of tasks | 2  (9.5%) | 12 (57.1%) | 5 (23.8%) |
| - employees are addressing each other on their performance more often | 3 (14.3%) | 11 (52.4%) | 5 (23.8%) |
| | | | |
| Organisation of our pilotdivision(s) | | | |
| - more possibilities to steer the results of our division | 1 (4.8%) | 9 (42.9%) | 9 (42.9%) |
| - better profiling of our division | 1 (4.8%) | 9 (52.9%) | 7 (41.2%) |
| - increase in satisfaction of external parties about our division | 1 (5.3%) | 8 (42.1%) | 10 (52.6%) |
| | | | |
| Efficiency | | | |
| - increase in productivity | 5 (31.3%) | 8 (50.0%) | 3 (18.8%) |
| - cost savings on our division | 4 (23.5%) | 11 (64.7%) | 2 (11.8%) |
| - cost savings, but not on our division | 3 (18.8%) | 13 (81.3%) | - |
| - cost savings, but not in our organisation | 5 (29.4%) | 11 (52.4%) | 1 (5.9%) |
| **Negative effects** | No | Yes | No idea |
| - increase in workload | 9 (42.9%) | 12 (57.1%) | - |
| - increase in costs | 10 (50.0%) | 4 (20.0%) | 6 (30.0%) |
| - less flexibility of employees | 19 (90.5%) | 1 (4.8%) | 1 (4.8%) |
| - less motivation of employees | 19 (90.5%) | 1 (4.8%) | 1 (4.8%) |
| - less attention for other aspects of care | 16 (84.2%) | 2 (10.5%) | 1 (5.3%) |

*Perceived effectiveness*
According to the model of team effectiveness of Cohen and Bailey's (1997) team effectiveness covers objective outcomes (patient satisfaction, patient's functional status etc.) as well as subjective outcomes (perceived effectiveness by team members). Studying effectiveness with objective outcomes on the client level is often limited by problems in data collection among clients and multiple explanations for changes in outcomes. This makes it hard to ascribe the effects to the interventions implemented. For these reasons it is also relevant to study the perceived team effectiveness of team members.

To assess perceived effectiveness, team members were asked to answer four questions on a 5-point scale. These questions assessed the extent to which they: (1) were satisfied with their experience as a team member; (2) felt positive about their experience; (3) would be willing to work on a similar team in the future; and (4) believed that their team's overall performance met their expectations. The results (see Table 7.4) showed that 81% is satisfied with their participation and positive about their experience with the improvement team. These two items were significantly related with a correlation coefficient of .80.

Table 7.4. Subjective effectiveness Decubitus ulcers

(T1 questionnaire team members n=21)

| | Mean | Totally disagree | | | | Totally agree |
|---|---|---|---|---|---|---|
| | (SD) | 1 | 2 | 3 | 4 | 5 |
| I am satisfied with my participation | 3.95 (.74) | - | 1 (4.8%) | 3 (14.3%) | 13 (61.9%) | 4 (19.0%) |
| I am positive about my experience | 3.95 (.59) | - | - | 4 (19.0%) | 14 (66.7%) | 3 (14.3%) |
| I am willing to participate again | 3.67 (1.02) | 1 (4.8%) | 1 (4.8%) | 6 (28.6%) | 9 (42.9%) | 4 (19.0%) |
| Team performance meets my expectations | 3.67 (.58) | - | 1 (4.8%) | 5 (23.8%) | 15 (71.4%) | - |

Although team members were positive about their participation and experience in the improvement team, more than a quarter was not convinced in their willingness to participate again (answer category 3). Only 71.4% reported to agree that the teams' overall results met their expectations. No significant correlations were found between this last item on the team's performance on the one hand and satisfaction with participation, positive experience and willingness to participate again on the other hand. As an overall measure of perceived effectiveness we asked team members to what extent the improvement team was effective considering the overall results. Only 14.3% perceived their team to be optimally effective, 47.6% answered moderately effective, 33.3% sufficiently effective and one team member (4.8%) considered the team insufficiently effective. As we do not have objective outcome measures for these teams yet, we cannot relate perceived effectiveness to objective effectiveness at this point in time.

## 7.2. Eating and Drinking

### 7.2.1. Short description of Eating and Drinking improvement project

The annual National Prevalence Measurement Care Problems of 2004 and a study of the Dutch Inspectorate showed that a considerable number of clients in care institutions is faced with ill-nutrition (Halfens et al. 2005; IGZ 2005). In nursing homes and residential care homes in the Netherlands prevalence of ill-nutrition is respectively 25.8% and 17.9% (Halfens et al. 2005). These studies and attention in the media for the problem of ill-nutrition was reason to start a improvement project on Eating and Drinking. In this improvement project the name Eating and Drinking was preferred above Nutrition and Fluids intake, since the project is not focused on intake of nutrition only, but focuses on the overall ambiance around eating and drinking. Eating and drinking has on the one hand a biological importance; supplying the body with energy and nutrients, but on the other hand it also has a strong social importance; meals and coffee breaks are important moments of the day and offer clients a moment to be together and to connect with other clients. This social aspect around eating and drinking stimulates clients' appetite as well as their actual intake of nutrients and fluid and vice versa, eating and drinking creates space for social interaction and enacting forms of autonomy. The biomedical rendering of a project on Nutrition and Fluids intake was therefore resisted.

This doesn't mean that the biomedical aspects are well represented in the issue of Eating and Drinking as insufficient intake of nutrients and fluids can lead to ill-nutrition. The annual National Prevalence measurement Care Problems (Halfens, Janssen, and Meijers 2006) defines ill-nutrition as clients:

- with a Body Mass Index (BMI) of lower than 18.5 (for clients older than 85 this is BMI < 24),
- or BMI between 18.5 and 20.0 (for clients older than 85 this is BMI between 24.0-29.0) in combination with more than 3 days of a week eating less or almost nothing compared to normally,
- or clients who unintendedly lost weight with more than 6 kilos in the past 6 months or more than 3 kilos in the past month.

Unintended weight loss is one of the symptoms for ill-nutrition and warning bells should ring for health professionals when this happens to clients. Registration and monitoring of clients' weight is essential in signaling clients at risk for ill-nutrition. Several factors may results in ill-nutrition:

- less intake of nutrients and fluid as a result of less appetite, mechanical restrictions (problems with chewing and swallowing) or one-sided choice of food intake
- increased demand for nutrients as a result of a severe or chronic disease, radiotherapy, chemotherapy or a recent major surgery
- abnormal loss of nutrients caused by for example absorption deficits in intestines, heavy regurgitation, diarrhea, or major blood loss.

Important groups of clients at risk for ill-nutrition are therefore clients who underwent a major surgery, the chronically ill and elderly. According to the annual National Prevalence measurement Care Problems clients at risk for ill-nutrition are clients with a BMI between 18.5 and 20.0 (for clients older than 85 this is BMI

between 24.0-29.0), or having eaten less or almost nothing compared to normally within three days of a week.

According to the Plan of action the Eating and Drinking improvement project has the following goals:
1. At least 30 divisions or improvement teams of care organizations participated in the improvement project Eating and Drinking by the end of the Care for Better program.
2. At least 70% of the participating improvement teams realized a substantial improvement in care for Eating and Drinking by the end of the project.
3. At least 70% of the participating improvement teams applies the improvement method to other divisions or teams
4. At least 50% of the participating improvement teams apply one of the principles for improving care for Eating and Drinking.
5. At least 50% of all care organizations know the Care for Better Eating and Drinking project by the end of the program.

Furthermore the following specific goals for improvement teams were formulated:
1. Decrease of prevalence of ill-nutrition with 40% by the end of the project.
2. At least 95% of the participating improvement teams has an operational system for signaling clients with ill-nutrition

*Number of participating teams*
Three rounds of this improvement project have been finished until now in which in total 38 improvement teams participated. A fourth round especially for care organizations in care for mentally handicapped is in progress at the moment. Unfortunately, the first three rounds could not be informed about our evaluation study at the time of their participation in the collaborative, therefore only a T1 questionnaire was sent. In this chapter results of the T1 questionnaire for the first and second round are presented. Questionnaires from the third round are still being collected and progressed. Of the 28 teams participating in these two rounds, 15 team leaders (54%) and 29 team members filled in the T1 questionnaire. Due to another evaluation questionnaire send by the Vilans improvement project leader and due to the fact that our T1 questionnaire was send just before summer (first week of June 2007) more effort had to be made to receive sufficient response.

## 7.2.2. Executed activities in Eating and Drinking projects

Activities for Eating and Drinking executed by improvement teams are shown in Table 7.5. Fourteen of the fifteen teams that returned the questionnaire followed their protocol better, for two of these teams this was new since Care for Better. Most of the teams also updated their protocol (12 teams). Ten of the fifteen teams organized clinical lessons for their employees to educate them on prevention and treatment of ill-nutrition. One important focus of the interventions was on creating an ambiance which stimulates clients to eat and drink more. For four teams this was a new type of activity and five teams paid more attention to this aspect since Care for Better. Participating in this improvement project did not lead to reported changes in the other activities for medical professionals and participation of clients.

Table 7.5. Executed activities of teams participating in Eating and Drinking
(T1 questionnaire team leaders n=15)

| Activities for Eating and Drinking…. | we do not do this | we already did this | since CfB better | new since CfB |
|---|---|---|---|---|
| *General* | | | | |
| - working according to protocol for prevention and/or treatment of ill-nutrition | 1 (6.7%) | 1 (6.7%) | 11 (73.3%) | 2 (13.3%) |
| - actualizing protocol | 1 (7.1%) | 2 (14.3%) | 8 (57.1%) | 3 (21.4%) |
| *Instruction and education* | | | | |
| - clinical lessons on prevention and treatment of ill-nutrition | 3 (21.4%) | 1 (7.1%) | 6 (42.9%) | 4 (28.6%) |
| - providing an information brochure to clients and/or family | 6 (50.0%) | 1 (8.3%) | 2 (16.7%) | 3 (25.0%) |
| *Specific activities* | | | | |
| - involving a dietitian | 4 (26.7%) | 8 (53.3%) | 2 (13.3%) | 1 (6.7%) |
| - encourage employees to address one another on their performance | - | 10 (66.7%) | 5 (33.3%) | - |
| - signaling and registration of ill-nutrition | - | 4 (26.7%) | 9 (60.0%) | 2 (13.3%) |
| - pay attention to ambiance | - | 4 (30.8%) | 5 (38.5%) | 4 (30.8%) |
| - meet preferences and wishes concerning eating and drinking of clients | - | 4 (28.6%) | 6 (42.9%) | 4 (28.6%) |
| Activities for (medical) professionals… | | | | |
| - internal visitation | 6 (46.2%) | 6 (46.2%) | 1 (7.7%) | - |
| - mirror conversations | 8 (61.5%) | 4 (30.8%) | 1 (7.7%) | - |
| - registrations of complications | 6 (50.0%) | 4 (33.3%) | 2 (16.7%) | - |
| - Registration Incidents Clients | - | 14 (100%) | - | - |
| Activities for client participation… | | | | |
| - electronic feedback for clients | 10 (83.3%) | 1 (83.0%) | 1 (8.3%) | - |
| - written feedback for clients | 7 (50.0%) | 5 (35.7%) | 2 (14.3%) | - |
| - mirror conversations | 8 (61.5%) | 5 (38.5%) | - | - |
| - focusgroups | 11 (84.6%) | 2 (15.4%) | - | - |
| - involving clients- and consumer platforms | 4 (28.6%) | 8 (57.1%) | 2 (14.3%) | - |
| - client satisfaction registration | - | 14 (93.3%) | 1 (6.7%) | - |
| - client needs registration | 3 (25.0%) | 7 (58.3%) | - | 2 (16.7%) |

### 7.2.3. Results of improvement teams participating in Eating and Drinking

*Objective outcomes*

As part of this improvement project improvement teams participated in the National measurement Prevalence Care problems in 2006 and 2007. These data are collected and analyzed by the University of Maastricht. Due to extensive data cleaning processes the original data are not available to the evaluation researchers and the results presented here are based on analyses done by the University of Maastricht (Mostert, 2007; Meijer, 2007). The results presented in Table 7.6 show that teams participating in round 1 and round 2 were able to decrease prevalence of ill-nutrition and prevalence of clients at risk for ill-nutrition. Although these results do not show how many improvement teams were able to decrease prevalence of ill-nutrition with 40%, which was the goal of this improvement project, the average difference of improvement teams in round 1 and 2 between 2006 and 2006 appears low.

Table 7.6. Prevalence ill-nutrition and risk for ill-nutrition
(analyses done by LPZ)

| ill-nutrition | 2006 % | 2007 % | Difference (2007-2006) |
|---|---|---|---|
| Round 1 | 28.8 | 23.4 | -5.4 |
| Round 2 | 32.4 | 30.1 | -2.3 |
| Non participating organisations | 23.9 | 22.3 | -1.6 |
| **risk for ill-nutrition** | | | |
| Round 1 | 49.8 | 45.2 | -4.6 |
| Round 2 | 56.2 | 54.7 | -1.5 |
| Non participating organisations | 41.9 | 41.2 | -0.7 |

In interpreting these results three issues should be taking into account:

- for clients older than 85 the boundary for ill-nutrition is differently than for clients younger than 85 (BMI < 24), which for some improvement teams caused an increase in prevalence of ill-nutrition, since a considerable number of clients became 85 during the project.
- since turnover of clients between 2006 and 2007 is an inevitable issue in nursing homes and residential care homes, the sample of 2006 did not consist of the same clients as in the sample of 2007, which hampers causal analysis.
- although the decrease in prevalence of ill-nutrition appears to be lean, comparison with non participating care organisations shows that Care for Better improvement teams were able to realize a significantly larger decrease (internal report Care for Better).

Interestingly, during the observation of the closing conference of round 1 and 2 some improvement teams reported that the percentage of clients with obesitas (BMI>25) increased during their project. LPZ analyses of aggregate data also showed that in participating nursing homes the percentage of clients with obesitas slightly increased from 14% in 2006 to 18.7% in 2007. Team members of these improvement

teams attributed this finding to the fact that working on ambiance affects all clients of a pilotdivision, even those not at risk for ill-nutrition but at risk for obesitas. Regular signaling and registration of weight of clients apparently does not prevent this.

*Positive and negative effects*
About 72.1% of the team members reported that as a result of the project their focus was more directed towards clients and 76.7% experienced an increase in satisfaction of clients (see Table 7.7). However, only 46.2% reported an increase in client safety. Most team members indicated that an increase in satisfaction and involvement of employees was realized or at least is expected. The spread of this method to other parts of the organization and applicability of the method to other subjects is one of the goals of Care for Better and enthusiastic employees may act as facilitators in this. At the end of the project, however, only 54.8% of the team members reported that employees were enthusiastic about working with the Breakthrough method. Although around 50% of the team members experienced positive effects with respect to better steering of results and a better profiling of their division(s), the other team members do expect this to occur as a result of the project in the near future.

As part of their interventions some teams ordered new material to create a good eating ambiance. Initially this leads to an increase in costs, however, on the long-term these interventions may lead to cost savings by preventing clients from developing ill-nutrition. Almost 40% of the team members reported an increase in costs as result of the project, and 35% reported that costs savings within their divisions were realised or will occur in the future. One team leader reported to have spent € 200 on educating employees. Although it is likely that teams made costs in ordering tablecloths and crockery, team leaders found it difficult to estimate the amount of this and often answered with a question mark to the question how many euros they spent on materials. Nine team leaders reported that employees spent equal time per client, two team leaders reported that more time was spent per client (12 and 4 minutes per week more). Four team leaders did not answer this question. Although 37.2% of the team members experienced an increase in workload, 41.1% experience an increase in productivity and 26.8% expected this for the near future. Three team members reported that as a result of the project less attention was paid to other aspects of care.

Table 7.7. Perceived positive and negative effects Eating and Drinking
(T1 questionnaire team members n=43)

| | not realised | | realised |
|---|---|---|---|
| **Positive effects** | not expected | is expected | |
| Clients | | | |
| - increase focus on client | - | 12 (27.9%) | 31 (72.1%) |
| - increase in client satisfaction | - | 10 (23.3%) | 33 (76.7%) |
| - increase in client safety | 10 (23.3%) | 11 (28.2%) | 18 (46.2%) |
| | | | |
| Employees on pilotdivision(s) | | | |
| - increase satisfaction employees | 1 (2.5%) | 14 (35.0%) | 25 (62.5%) |
| - increase involvement of employees | - | 9 (22.0%) | 32 (78.0%) |
| - enthusiasm about working with Breakthrough method | 5 (11.9%) | 14 (33.3%) | 23 (54.8%) |
| - more clarity about division of tasks | 5 (12.2%) | 15 (36.6%) | 21 (51.2%) |
| - employees are addressing each other on their performance more often | 7 (17.5%) | 21 (52.5%) | 12 (30.0%) |
| Organisation of our pilotdivision(s) | | | |
| - more possibilities to steer the results of our division | 5 (11.9%) | 16 (38.1%) | 21 (50.0%) |
| - better profiling of our division | 5 (11.9%) | 9 (21.4%) | 28 (66.7%) |
| - increase in satisfaction of external parties about our division | 4 (9.1%) | 17 (44.7%) | 17 (44.7%) |
| Efficiency | | | |
| - increase in productivity | 16 (39.0%) | 11 (26.8%) | 14 (41.1%) |
| - cost savings on our division | 26 (65.0%) | 11 (27.5%) | 3 (7.5%) |
| - cost savings, but not on our division | 29 (74.4%) | 7 (17.9%) | 3 (7.7%) |
| - cost savings, but not in our organisation | 29 (74.4%) | 7 (17.9%) | 1 (2.7%) |
| **Negative effects** | No | Yes | No idea |
| - increase in workload | 22 (51.2%) | 16 (37.2%) | 5 (11.6%) |
| - increase in costs | 18 (41.9%) | 17 (39.5%) | 8 (18.6%) |
| - less flexibility of employees | 36 (83.7%) | 4 (9.3%) | 3 (7.0%) |
| - less motivation of employees | 38 (88.4%) | 4 (9.3%) | 1 (2.3%) |
| - less attention for other aspects of care | 35 (83.3%) | 3 (7.1%) | 4 (9.5%) |

*Perceived effectiveness*
With regard to perceived effectiveness the results (see Table 7.8) showed that 88.3% is satisfied with their participation and 85.8% is positive about their experience with the improvement team. Although only 69.8% of the team members reported to agree that the teams' overall results met their expectations, this does not seem to restrain them to participate again in an improvement team. No significant correlations were found between this last item on the team's performance on the one hand and satisfaction with participation, positive experience and willingness to participate again on the other hand.

On the question to what extent they considered their team to be effective only 16.3% of the team members perceived their team to be optimally effective, 41.9% answered moderately effective, 39.5% sufficiently effective and one team member considered the team insufficiently effective.

Table 7.8. Subjective effectiveness Eating and Drinking
(T1 questionnaire team members n=43)

| | Mean | Totally disagree | | | | Totally agree |
|---|---|---|---|---|---|---|
| | (SD) | 1 | 2 | 3 | 4 | 5 |
| I am satisfied with my participation | 4.19 (.63) | - | - | 5 (11.6%) | 25 (58.1%) | 13 (30.2%) |
| I am positive about my experience | 4.17 (.66) | - | - | 6 (14.3%) | 23 (54.8%) | 13 (31.0%) |
| I am willing to participate again | 4.38 (.66) | - | - | 4 (9.3%) | 19 (44.2%) | 20 (46.5%) |
| Team performance meets my expectations | 3.84 (.78) | - | 2 (4.7%) | 11 (25.6%) | 22 (51.2%) | 8 (18.6%) |

## 7.3. Prevention of sexual abuse improvement project

### 7.3.1. Short description of Prevention of sexual abuse improvement project

Annually, only a few incidents of sexual abuse in nursing homes, residential care homes, and home care are reported to The Dutch Inspectorate  (IGZ 2004, 2003, 2004). In the care for mentally handicapped this number is higher: 137 incidents were reported to the inspectorate in 2006 (IGZ 2006). The number of incidents is most likely higher than these numbers, since for persons dependent on long-term care it is difficult to report that they are being sexually abused. On the one hand this has to do with feelings of dependence and shame, on the other hand with the fact that some groups are not capable of notifying others that they have been sexually abused. One can think of persons with a severe mental handicap or psychogeratric clients. In long-term care it is not unfamiliar that employees are aware of or suspect abuse, but do not report this (Linthorst and Van der Linden 2005; IGZ 2004).

The focus of this improvement project is not only on primary prevention of sexual abuse, but also on secondary prevention. In case of sexual abuse victim as well as abuser should be appropriately supported in order to prevent worse. Attention for prevention is often incident related and fades away after some time. Besides, little evidence based research is done on prevention of sexual abuse in long-term care. Based on several studies (Lammers, Kok, and Oude Avenhuis 2005; Belie 2000; Van Berlo 1995; Douma, Van den Bergh, and Hoekman 2000) the Vilans coreteam developed a matrix of measures to focus on when improving prevention of sexual abuse. Measures for primary and secondary prevention can be directed towards clients, their social network, and three aspects of the organisation; employees, system of care delivery and vision and policy of the organisation.

At the stage of writing the plan of action and at the beginning of this improvement project there was no clarity on which specific measures could be undertaken and which measures had priority. During expert meetings it appeared that the experts agreed that organisations with appropriate prevention of sexual abuse have three aspects in common: competent employees with an appropriate attitude towards

prevention of sexual abuse and appropriate steering from management. In an optimal situation employees respect the needs and wishes of their clients and take the wishes and boundaries of clients as a departure point for caring and supporting these clients. There is an open and appropriate climate in which it is acceptable for clients, as well as their social network members and employees to talk about sexuality, about their boundaries and about intimidation and abuse. Furthermore, all parties know how to act in case of questions or suspicion of intimidation or abuse, and to whom they can go with questions or doubts. To accomplish this it is imperative that managers in care organisations consider sexuality and prevention of sexual abuse as relevant and steer their divisions on this theme on a structural basis. The core team on the basis of these expert opinions decided to adjust the plan of action and focus the improvement project on improving attitude and competence of employees and on steering by management.

The general goals of the Prevention of sexual abuse improvement project are:

- At least 30 coordinators prevention of sexual abuse of care organisations participating in the improvement project Prevention of sexual abuse are trained by the end of the Care for Better program.
- At least 70% of the coordinators Prevention of sexual abuse participating realized a substantial improvement in care for Prevention of sexual abuse intake by the end of the project.
- At least 70% of the participating improvement teams applies the improvement method to other subjects.
- At least 50% of all care organisations in care for mentally handicapped know the Care for Better Prevention of sexual abuse project by the end of the program.

*Number of participating teams*
Two rounds of this improvement project have been finished until now in which in a total of 19 improvement teams participated with 27 divisions. Unfortunately, these teams could not be informed about our evaluation study at the time of their participation in the collaborative, therefore only a T1 questionnaire was sent. In this chapter results of the T1 questionnaire for the first round are presented. Questionnaires from the second round are still being collected and progressed. Of the 10 teams participating in the first round, 6 team leaders (60%) and 12 team members filled in the T1 questionnaire.

## 7.3.2. Execute activities in Prevention of sexual abuse projects

In case of sexual abuse victim as well as abuser should be appropriately supported in order to prevent worse. All parties should know how to act in case of questions or suspicion of intimidation or abuse, and to whom they can go with questions or doubts. In order to realise such a situation, two third of the improvement teams updated their procedures and followed these procedures better since Care for Better. Related to this two third of the teams updated their complaint- and incident registration procedures and followed these procedures better (Table 7.9).

To create awareness, improve attitude and competence of employees, most teams (80%) focused their interventions at educating employees. About 83% of the teams reported that employees were more encouraged to address each other on their performance. Half of the teams improved their signaling and registration of sexual abuse and 66.7% improved their measurement of attitude, competence and steering.

According to the matrix of measures that the Vilans coreteam developed, measures should also be directed towards clients and their social network. Half of the teams improved their activities concerning providing information on sexuality to clients and two third improved their activities concerning providing information to family members. For one team this last activity was new since Care for Better. As to training clients in assertiveness most teams (83.3%) already did this and did not report that they were doing it better now since Care for Better. Most teams (83.3%) improved their registration of experience and safety perception of clients and for one team this was a new activity.

### 7.3.3. Results of improvement teams participating in Prevention of sexual abuse

*Positive and negative effects*
About 76.5% of the team members reported that as a result of the project their focus was more directed towards clients and 41.2% experienced an increase in satisfaction of clients (see Table 7.10). With regard to client safety 50% considered this effect as realized and the other 50% expected this to occur in the near future.

Since activities were focused on improving the attitude and competence of employees, it is interesting to notice that 50% reported that an increase in satisfaction of employees was realised, 81.3% perceived an increase in involvement of employees and 58.8% reported that employees are addressing each other on their performance more often. Even though the theme of this improvement project is less concrete and on a different level than Decubitus ulcers and Eating and Drinking, 82.4% of the team members reported that employees were enthusiastic about working with the Breakthrough method.

Next to improving attitude and competence of employees, teams were stimulated to pay attention to the steering of their pilot divisions. One third of the team members reported that better steering of results of the pilot divisions was realised and 53.3% reported that is expected. About 47% reported that they expect that the improvement project will lead to a better profiling of their pilot divisions and about 57% that it will lead to an increase in satisfaction of external parties.

A large majority of the team members did not expect any cost savings, which is comprehensible considering the theme of this improvement project. One team leader reported to have spent € 1000 on educating employees. The other five team leaders did not answer this question. Time spent per client remained equal according to four team leaders, one team leader answered 'don't know' and one did not answer.

Also interesting to point out is that 6 team members (35.3%) reported that employees were less motivated and also 6 team members reported that as a result of the project less attention was paid to other aspects of care.

Table 7.9. Executed activities of teams participating in Prevention of sexual abuse
(T1 questionnaire team leaders n = 6)

| Activities for Prevention of sexual abuse… | we do not do this | we already did this | since CfB better | new since CfB |
|---|---|---|---|---|
| *General* | | | | |
| - working according to protocol for supporting sexuality and prevention of sexual abuse | - | 3 (50.0%) | 3 (50.0%) | - |
| - actualising protocol | - | 3 (50.0%) | 2 (33.3%) | 1 (16.7%) |
| - actualising complaint- and incident registration procedure | - | 2 (33.3%) | 4 (66.7%) | - |
| - working according to complain- and incident registration procedure | - | 2 (33.3%) | 4 (66.7%) | - |
| *Instruction and education* | | | | |
| - education on supporting sexuality and prevention of sexual abuse | - | 1 (20.0%) | 4 (80.0%) | - |
| - providing information on sexuality to clients | - | 3 (50.0%) | 3 (50.0%) | - |
| - providing information to family members | - | 1 (16.7%) | 4 (66.7%) | 1 (16.7%) |
| *Specific activities* | | | | |
| - involve a counselor | 1 (16.7%) | 3 (50.0%) | 2 (33.3%) | - |
| - encourage employees to address one another on their performance | - | 1 (16.7%) | 5 (83.3%) | - |
| - signaling and registration of sexual abuse | - | 3 (50.0%) | 3 (50.0%) | - |
| - note in careplan about sexuality, relationships, sexual upbringing and abuse | - | 3 (50.0%) | 2 (40.0%) | - |
| - training of clients in assertiveness | 1 (16.7%) | 5 (83.3%) | - | - |
| - structural measuring attitude, competence and steering | - | - | 4 (66.7%) | 2 (33.3%) |
| - structural registration of experience and safety perception of clients | - | - | 5 (83.3%) | 1 (16.7%) |
| Activities for (medical) professionals… | | | | |
| - internal visitation | 2 (40.0%) | 1 (20.0%) | 2 (40.0%) | - |
| - mirror conversations | 4 (66.7%) | 2 (33.3%) | - | - |
| - registrations of complications | 3 (60.0%) | 2 (40.0%) | - | - |
| - Registration Incidents Clients | 3 (50.0%) | 3 (50.0%) | - | - |
| Activities for client participation… | | | | |
| - electronic feedback for clients | 2 (33.3%) | 2 (33.3%) | - | - |
| - written feedback for clients | 4 (100.0%) | - | - | - |
| - mirror conversations | 4 (100.0%) | 1 (25.0%) | - | - |
| - focusgroups | 3 (75.0%) | 5 (83.3%) | - | - |
| - involving clients- and consumer platforms | 1 (16.7%) | 4 (80.0%) | - | - |
| - client satisfaction registration | 1 (20.0%) | 4 (100.0%) | - | - |
| - client needs registration | | | | |

Table 7.10. Perceived positive and negative effects Prevention of sexual abuse
(T1 questionnaire team members n=17)

| | not realised | | realised |
|---|---|---|---|
| **Positive effects** | not expected | is expected | |
| Clients | | | |
| - increase focus on client | 1(5.9%) | 3(17.6%) | 13(76.5%) |
| - increase in client satisfaction | 1(5.9%) | 9(52.9%) | 7(41.2%) |
| - increase in client safety | - | 8(50.0%) | 8 (80.0%) |
| | | | |
| Employees on pilotdivision(s) | | | |
| - increase satisfaction employees | - | 8(50.0%) | 8(50.0%) |
| - increase involvement of employees | - | 3(18.8%) | 13(81.3%) |
| - enthusiasm about working with Breakthrough method | - | 3(17.6%) | 14(82.4%) |
| - more clarity about division of tasks | - | 8(50.0%) | 8(50.0%) |
| - employees are addressing each other on their performance more often | - | 7(41.2%) | 10(58.8%) |
| | | | |
| Organisation of our pilotdivision(s) | | | |
| - more possibilities to steer the results of our division | 1(13.3%) | 8(53.3%) | 5(33.3%) |
| - better profiling of our division | 3(20.0%) | 7(46.7%) | 5(33.3%) |
| - increase in satisfaction of external parties about our division | 4(22.2%) | 8(57.1%) | 2(14.3%) |
| | | | |
| Efficiency | | | |
| - increase in productivity | 9(60.0%) | 5(33.3%) | 1(6.7%) |
| - cost savings on our division | 12(85.7%) | 1(7.1%) | 1(7.1%) |
| - cost savings, but not on our division | 12(92.3%) | 1(7.7%) | - |
| - cost savings, but not in our organisation | 12(92.3%) | 1(7.7%) | - |
| | | | |
| **Negative effects** | No | Yes | No idea |
| - increase in workload | 6(35.3%) | 7(41.2%) | - |
| - increase in costs | 5(29.4%) | 6(35.3%) | 6(35.3%) |
| - less flexibility of employees | 10(58.8%) | 7(41.2%) | - |
| - less motivation of employees | 10(58.8%) | 6(35.3%) | 1(5.9%) |
| - less attention for other aspects of care | 11(64.7%) | 6(35.3%) | - |

*Perceived effectiveness*

With regard to perceived effectiveness the results (see Table 7.11) showed that 77.8% is satisfied with their participation and 88.8% is positive about their experience with the improvement team. Although only 58.8% of the team members reported to agree that the teams' overall results met their expectations, this does not seem to restrain them to participate again in an improvement team. Except for one team member, all team members are willing to participate again in an improvement team. On the question to what extent they considered their team to be effective only one team member (5.6%) perceived his or her team to be optimally effective, 22.2% answered moderately effective, 27.8% sufficiently effective and more than one third (38.9%) answered insufficiently effective. One team member considered the team not to be effective.

Table 7.11. Subjective effectiveness Prevention of sexual abuse
(T1 questionnaire team members n=18)

|  | Mean | Totally disagree |  |  |  | Totally agree |
|---|---|---|---|---|---|---|
|  | (SD) | 1 | 2 | 3 | 4 | 5 |
| I am satisfied with my participation | 4.00 (.84) | - | 1 (5.6%) | 3 (16.7%) | 9 (50.0%) | 5 (27.8%) |
| I am positive about my experience | 4.28 (.83) | - | 1 (5.6%) | 1 (5.6%) | 8 (44.4%) | 8 (44.4%) |
| I am willing to participate again | 4.33 (.97) | 1 (5.6%) | - | - | 8 (44.4%) | 9 (50.0%) |
| Team performance meets my expectations | 3.71 (.85) | - | 1 ( 5.6%) | 6 (35.3%) | 7 (41.2%) | 3 (17.6%) |

## 7.4. General discussion

### 7.4.1. Executed activities

One of the first types of activities improvement teams start working on is updating their protocols and stimulating employees to work according to these protocols. The point of departure varies considerable between teams; some already have all their protocols in good order, whereas others do not. Dependent on their strengths and weaknesses, improvement teams could choose from a wide range of activities. The tables with executed activities presented a first glance at this and the ethnographic observations within participating care organisations, which are planned for next year, will lead to a more detailed description of activities that take place. What we have already seen during the improvement projects is that the focus on protocols and guidelines is problematic at times. As indicated in chapter 5, there are many teams that focus on improving their protocols – especially teams for whom the improvement theme is relatively new or needs quite some more focus – but at the same time there are teams, as in the example of Medication safety, who have all their protocols in place but find their problems are not addressed. It therefore seems that the strong focus on developing protocols may not quite be addressing the issues of the improvement projects. As proponents of guidelines and protocols are well aware, "the best guideline is only a good intention unless it

degenerates into clinical care" (Dilts 2005, pg 5881). But moreover, the development of protocols may actually be a rather limited intervention in the light of the complexities that care professionals face. We will therefore not only focus our further study on what interventions are developed and introduced, but also relate them to the appropriateness for addressing the issue at hand. For this, we will make use of the data on the outcome indicators as soon as these become available. We can then investigate to what extent the observed effects can be attributed to executed activities.

Next to activities specifically targeted at the theme of the improvement project, we asked team leaders to indicate to what extent they improved or started new activities targeted at (medical) professionals and clients. Improvement teams paid little attention to improving their activities for (medical) professionals, even though activities as internal visitation and mirror conversations may provide helpful feedback on performance of employees and may facilitate development of professional attitudes and competence of employees, which is an issue in each of these three improvement project. Only in the Prevention of sexual abuse project, addressing each others' performance was furthered by the teams.

The extent to which activities for participation of clients in these three improvement projects are executed is partly dependent on differences in the focus of these projects. As we indicated in chapter 6, the Eating and Drinking improvement project paid considerable attention to getting to know and fulfill the wishes and preferences of clients. Therefore, some of the improvement teams participating in this improvement project started making more use of activities for client participation, such as involving client platforms and client satisfaction registrations. In contrast, improvement teams participating in the Decubitus Ulcers and Prevention of sexual abuse improvement projects did not improve or started new activities for client participation. This finding may be related to how these improvement teams were composed. As described in chapter 6, improvement teams in Eating and Drinking had more often and a higher number of clients as a member of their team.

## 7.4.2. Positive and negative effects
With respect to the objective outcomes the results showed that a considerable number of teams (40%) achieved a 50% decrease in prevalence of decubitus ulcers, whereas for improvement teams working on Eating and Drinking it was more difficult to achieve the goal of 40% decrease in prevalence of ill-nutrition. On first glance the results of Eating and Drinking appear disappointing. However, comparing with non participating care organisations the results revealed that participating teams were able to achieve a larger decrease in prevalence of ill-nutrition than non participating organisations. For both improvement projects one has to take into account the composition of client samples at baseline and end-measurement, the turnover of clients which is inevitable in the care sector and the point of departure of participating teams. Since original data are lacking, we were not able to measure the effects of these variables for the reported results.

In each of the three improvement projects most team members agree that as a result of the project more attention is paid to clients and an increase in client satisfaction and client safety was realized or at least is expected to occur in the near future. Whereas the issue of ill-nutrition is just as much an issue of patient safety as are decubitus ulcers and prevention of sexual abuse, 10 team members

participating in the Eating and Drinking improvement project did not expect that an increase in patient safety would occur. Especially an increase in the involvement of employees was perceived by most team members. Compared with the other two projects a higher percentage of team members participating in the Prevention of sexual abuse improvement project reported enthusiasm of employees about working with the Breakthrough method. As to the positive effects on the organisation of pilotdivision(s) the answers vary between team members, which may be influenced by their position within the organisation and how well they are capable of forming an opinion about this.

As discussed earlier for each project separately, the majority of the team members did not experience positive effects with regard to cost savings. Also our finding that team leaders often did not answer our questions about costs related to the project or filled in a question marks shows that there is a strong focus on quality improvement and that efficiency is not seen as a domain of this definition of quality. The questionnaires confirm what we have discussed in paragraph 5.7, which is a general differentiation and separation of realizing results in quality improvement and the 'management problem' of efficiency. This is a point of concern when the projects need to be relevant not only at the level of pilots but also at the level of organizations and even at a sector level.

### 7.4.3. Perceived versus objective team effectiveness

The difference in perceived effectiveness and the improvements that can be shown in the form of outcome indicators points to an issue in the operationalisation of 'effectiveness'. According to the model of team effectiveness of Cohen and Bailey's (1997), team effectiveness covers objective outcomes (patient satisfaction, patient's functional status etc.) as well subjective outcomes (perceived team effectiveness by team members). Studying effectiveness with objective outcomes on the client level is often limited by problems in data collection among clients and multiple explanations for changes in outcomes. This makes it hard to ascribe the effects to the interventions implemented. For these reasons it is also relevant to study the perceived team effectiveness of team members. Some studies on effectiveness of quality collaboratives only included subjective outcomes or only objective outcomes, making comparisons across studies very difficult. Including multiple outcome dimensions in the conceptualization of effectiveness in one study offers a more in depth insight of the relations between perceived and objective effectiveness. In the context of a quality collaborative this relation is furthermore of importance because of the oft seen shifting of goals during projects.

As we have shown in chapter 5 this shifting of goals need not be a bad sign in any way. It may actually be a sign of the kinds of reflection that good quality improvement should be about. When thinking of the care institution in the medication safety project that had all the measurement systems and protocols in place but who hardly had any reported medication errors, shifting their objective to an *increase* of reported errors seems like a situated, reflexive and sensible thing to do. Classifying their effects – which will obviously not be reported as a reduction of medication errors – as 'subjectively effective' seems to be missing the point. Subjective effectiveness often has a pejorative connotation whereas we are

convinced of the need to differentiate such carefully pondered upon changes of targets from targets that have not been changed but neither have been met, or from targets that have been changed in a problematic way. As stated in chapter 5, we share a commitment with Vilans to make such *other* results than those of meeting pre-defined targets visible. This is a commitment that we will explore further in this research, since it seems crucial to respectfully research the complexity of what different teams are actually doing in terms of improvement, but also since it points to some dearly needed refinements in the conceptual apparatus of quality improvement research.

# Chapter 8 Dilemmas in evaluating quality collaboratives

> We discussed your desire to take an action research approach to the
> evaluation and decided that that was not what we wanted… it is
> therefore not appropriate to allow you, or your team, to amend
> what we are doing… Your brief is to evaluate what we are doing, not
> to coach us on how to do it… We are in danger of confusing roles,
> and of wasting our precious time. (Bate and Robert 2002)

This quote, taken from an interview reported on by Bate and Robert in the context
of discussing the problems of action research in health improvement contexts,
captures well the dilemma's faced by both researchers and executors of quality
improvement collaboratives. Whereas the drive for quality collaboratives is to
stimulate mutual learning by creating 'learning laboratories' within and between
healthcare organizations, the role of evaluators of those collaboratives remains full
of tensions. On the one hand, researchers feel the need to contribute to the overall
objectives of collaboratives by feeding back their findings, enabling participants to
learn from their analyses. Within the methodological literature there is also an
increasing call for and development of methods that actually facilitate these kinds
of evaluations, from Guba and Lincoln's by now classical work on 'Fourth
generation evaluation' onwards (Guba and Lincoln 1989). Methods such as
'responsive evaluation' (Abma 1995), 'action research' (Senge and Scharmer 2001)
and 'formative evaluation' (Øvretveit 2002) allow researchers to actually take up
this role. On the other hand, as Bate and Roberts duly note and painfully found
out, such approaches have a particular bad name within the healthcare literature.
Citing Scriven's 1991 lemma on action research in the 4th edition of Sage's
'Evaluation Thesaurus':

> Action research: 1. A little-known subfield in the social services that can be
> seen as a precursor to evaluation. 2. More commonly, today, the name for
> research by teachers on classroom or school phenomena. An excellent idea,
> but one with a very poor track record (Scriven, 1991, as cited by Hills, 2001,
> as cited by (Bate and Robert 2002).

The advent of evidence-based medicine from the mid 1980s onwards has brought a
scientistic discourse to the practice of healthcare evaluation which sees evaluation
as an exercise that is performed independent from the interventions under study
and that acts as a post hoc allocation of success or failure. Whereas learning is still
a main objective of this kind of evaluation, learning is supposed to be the result of
such after the event allocations. Collective learning is then directed at the next
intervention. Although the discovery of the 'implementation problem' has made
the evidence-based movement aware of the difficulties of such collective learning
processes, and the literature is by now rampant of the stories stating the fact that

evaluations are mostly ignored by the people who should use them (Pollitt 2006), efforts have gone mainly in the development of vehicles for implementation (quality improvement collaboratives being themselves one of the results of that process) rather than searching for approaches that actually 'prevent implementation' (Zuiderent-Jerak 2007). Whereas action research thus tries to add to this prevention of implementation to occur, it faces the serious risk of running into credibility problems (Bal and Mastboom 2007).

A similar dilemma is faced by executers of interventions in health care, even of the scale of quality improvement collaboratives. As most evaluations of such collaboratives until now have been done by organizations performing such collaborative approaches, reactions in the literature have been to disregard results coming from these evaluations (Leatherman 2002; Mittman 2004). Advocating 'rigorous' research into quality collaboratives, adopting approaches taken from evaluations of much smaller scale interventions, researchers are trying to "improve the evidence base" (Mittman 2004) for quality collaboratives. Large scale evaluations, such as the ones performed by Cretin, Shortell and others in the US (Cretin, Shortell, and Keeler 2004), and Wagner, Dücker and others in the Netherlands (Dückers, De Bruijn, and Wagner 2006; Dückers and Wagner 2007; Dückers, Wagner, and Groenewegen 2005) tie into this call, with clients pointing to the "danger of confusing roles" as expressed in the opening quote to this chapter. However, as collaborative approaches are based on the assumption of creating learning situations, in practice it is hard to sustain such a detached position, not just from the side of the researchers but from their clients as well. As Bate and Robert note: "The mere fact of our presence and the questions we were asking were influencing the situation." (Bate and Robert 2002) During their project this was increasingly also recognized by their client that was performing the collaborative and three quarters through their evaluation their role transformed into one of action researchers nonetheless and despite the initial fierce reactions against taking up such a role.

We found ourselves in a different starting situation from Bate and Robert. When writing our project proposal for the evaluation of the Care for Better collaborative we recognized, like them, that it was impossible *not* to intervene in the collaborative as researchers. Having been involved in the execution of a quality collaborative ourselves, we knew for example that measuring is a form of intervention, if only as it is part of the PDSA cycle. What kinds of indicators would be set to compare across healthcare organizations, what kinds of items to be taken up in questionnaires would trigger improvement teams to do certain things and not others – if only by ignoring the kinds of indicators we would set and displacing goals of the specific project they would be participating in. As part of the research team is trained in ethnographic analyses of science and technology, we also new that each interview would be a trigger for change for our respondents. We therefore included formative elements in the evaluation we proposed to perform. Quoting from the 'dissemination' section for our project proposal

> …there will be regular feedback on the basis of (intermediary) study results
> to the program leadership (NIZW [now Vilans] and ZonMW), which will
> enable making adjustments to the program on the basis of study results…

Both in the reviewers' reports and in the final decision by ZonMW the combination of summative and formative methods we proposed was welcomed. And we were up to take up the challenge. In this chapter we will provide a first glance of the experience of this endeavor.

**Negotiating indicators – struggling with the formative-summative divide**
As discussed above and shown earlier in this report, measuring team effectiveness through reporting on predefined indicators is an important intervention. This is not confined to the Breakthrough method but is also true for the evaluation. As the timing of the call for proposals for the evaluation included that we would be stepping into an already running program, Action plans for the improvement projects were already largely made and some of the projects were even already running – if not more than half way – when we started our research. Not surprisingly, two out of the three projects that were already underway were those that in term of outcome measures at the client level were the 'simple' ones (the ones reported on in this report: Decubitus ulcers and Eating and Drinking), as for these projects 'best practices' – in the product definition referred to in chapter 5 – were already defined and national measuring infrastructures existed in the form of the LEVV measurements and the LPZ. For the other projects, however, this was not the case and the development of the right quality indicators was still quite a search that the teams had by then largely completed – more or less to their satisfaction. But for both the running projects and those that were less far in their planning, we needed additional measures to be included in the evaluation. The most important of these was that we wanted to create comparability between the completely different improvement projects that form part of the Care for Better collaborative in order to assess cost-effectiveness. As within the sectors efforts had been put in creating a framework for measuring quality – the so-called 'norms for responsible care' – we wanted to align with the most generic indicator underlying this: quality of life.

Though Vilans and ZonMw tried to see the evaluation as an integrated part of the Care for Better program, unavoidably decisions had already been made and the need for specific measures had dominated the earlier discussions in the core and expert teams. Understandably, therefore Vilans was not thrilled at first about our wish to include measuring quality of life. This indicator may be crucial for comparing across projects, but would not contribute much to the projects themselves. It would however entail much work for the improvement teams and where such discussions could have been productive at the outset of the project, it now created distance between Vilans and the evaluators. Rather than being an integrated part of the project, we were a party that desired extra things on top of running projects. Already at our first presentation to the team meeting for the improvement project coordinators, presenting the general setup of our evaluation, this issue caused quite some discussion. Knowing the difficulties they already faced in creating support for the quality improvement efforts in the healthcare organizations that were participating in their projects, the coordinators feared the extra work the evaluation would create for the improvement and pilot teams. As a means to resolve this issue it was decided after a couple of rounds of further discussions with the project leadership that we would start a round of talks with

the improvement project coordinators to define indicators that were acceptable to both of us. Also, a data manager would be added to the collaborative to build a measurement infrastructure with which both the evaluation and the improvement projects could work. Moreover, we decided that the quality of life indicator that we wanted for cross-project comparisons would be aligned with the patient satisfaction questionnaires care organization would be forced to start using by new government regulations in the near future and also that we would satisfy ourselves with data collection on quality of life on project, rather than on client level (meaning that we would only need data from 2 to 3 clients for each improvement team which was thought do-able by the program leadership).

In the negotiating process that followed with the improvement project coordinators, we were regularly confronted with – in our view – unclarity on the part of the project as to what the indicators were to which improvement was to be measured. As goals for some of the projects were set on rather general levels, the exact measures needed to assess improvement were lacking. As a result, during those negotiations, we intervened by suggesting more exact indicators that could be set, should be measured by improvement teams and reported on both in the evaluation and in PDSA cycles. In effect, as performance indicators as we know are not just 'neutral' instruments but carry with them a normative agenda (Power 2004), we were directing the goals of the improvement projects in these negotiations on indicators. But at the same time our ethnographic analyses of working conferences was showing the difficulties in defining smart and workable measurements.

      In our negotiations with the improvement project leaders, we were thereby enacting one of the central tensions in our own evaluation: whereas performance indicators are necessary to enable comparisons between sites, the situatedness of improvement efforts calls for a constant awareness for and flexibility in goal displacement. Though the negotiations and conversations with Vilans were largely productive and cordial, we were of course not able to resolve this tension. Were we falling in the trap of an impossible combination of summative and formative evaluations? Should we have learned better from the experience of others in this? For example, as again Bate and Robert argue: "…our experience should be a warning against trying to do this [combining summative and formative kinds of evaluation] because of the impossible and, largely, unmanageable tensions that are created when one is trying to do both." (2002, pg 977).[1] We wanted to study how performance targets can be seen as a scientific and political rallying point in organizational change projects with a multiplicity of potentially fruitful consequences (Timmermans and Mauck 2005; Timmermans and Berg 2003) and how formalities that are designed to afford complexity and adjustments, can be much more productive as 'governance machineries' than the extremes of ritual obedience to blueprints and romantic appeals to 'reality' or 'complexity' (Stinchcombe 2001). But ironically this resulted in us pleading for the use of a stronger focus on measurement that we saw as hampering the actual improvement processes.

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[3] For similar experiences, see (May and Ellis 2001; de Bont and Bal 2007)

As shown in the previous chapters, there is a lot to learn from the approaches we take, but the outcome of this learning process is far from articulated or self-evident. As knowing that interesting findings are emerging but not knowing how to articulate them in a quantified form is something we would hardly permit for the improvement project leaders, we can fully understand that our role may be seen as unclear and asymmetrical. We try to bring some of the symmetry back in by stressing to improvement project leaders that we are interested in the coordinating powers of indicators but are not solely focusing on the quantitative format, which is so dominant in EBM-inspired quality improvement. After all, stories travel too, and also have consequences and coordinating powers that may be quite welcome when indicators fail to do so. The development of e.g. the portfolios for the autonomy project, previously described, is therefore an interesting contribution to resolving the tensions between evaluating performance and exploring and innovating, and we think our discussions with the improvement project leaders contribute to such instruments emerging.

**The client role**
We and Vilans are not the only ones who are part of the tension between evaluation and improvement. This tension is similarly experienced by the commissioner of both the evaluation and the quality collaborative: ZonMw. Neither is this exceptional. As discussed above taking the example of the National Health Service as the organisation both performing a quality collaborative and commissioning its evaluation, such a tension is inherent for the client role. As is also clear from this example, clients can follow different strategies in dealing with this tension. For the NHS, only nearing completion of the project the initial 'confusing roles' position was changed for one in which the evaluators were allowed to feed back their results to the project management. Fortunately ZonMw, as argued earlier, takes a different stance. For one thing, questions like 'what are your findings? how are things going in the collaborative? what improvements can be made' have been put to us on several occasions. As we are growing in the project, we also have found several instances where we could begin to answer the question how the collaborative is developing. Examples of these are spread through the previous chapters (but see also the next and last section of this one).

Also in the negotiations with Vilans on the evaluation methodology this tension in ZonMw's role is expressed. Where we as researchers had mainly experienced ZonMw in the role of commissioning the research, we found out this role was at times conflicting with the role of commissioning the Care for Better collaborative. Though Vilans, the evaluation researchers and ZonMw tried to enact the evaluation as an integrated part of the collaborative, rather than a summative study of what was done elsewhere, all had to face the difficulty that the evaluation was starting up while the project was in the middle of being carried out. This of course did not contribute to the integration of evaluation and program.

But when we started to announce our wish to observe working conferences, we found out that everybody's good intentions of seeing the evaluation as integrated was challenged by practical problems. The first conference we signed up for was a working conference for the prevention of sexual abuse and soon after we send out the email we were contacted by the project leader who indicated that she saw

some problems in us attending the conference. It was a rather touchy subject, where she had invested a lot of energy and care in creating a 'safe' atmosphere for the participants. Some institutions had quite traumatic experiences with local press coverage when instances of sexual abuse were discovered. The project leader feared that our attendance, which was on a very short notice, would jeopardize this safety and would negatively influence the conference. We suggested that we would promise at the start of the conference to respect the privacy of participating institutions and even offered that in case some of the participants perceived our presence as intimidating or otherwise problematic, we would leave the scene. We thought that once we were in, her fear would subside and all would work out well. But quite understandably the project leader did not want to take this risk in the otherwise very well prepared conference. The Care for Better program manager supported his project leader in her protection of the conference. So here we were, both Vilans and the evaluators with the best intentions, but unable to see the evaluation as an integrated part on such short notice and in the light of this practical problem. As evaluators we saw no other option than to confront ZonMw with these conflicting interests of two parties who were both trying to carry out their ZonMw assignments in the best possible way – assignments that were in this case conflicting. To ensure the good relations with Vilans, we also informed them that we saw no alternative than to let ZonMw be the judge of what would be wise in this case. At this time, ZonMw proved to privilege its role as commissioner of the Care for Better collaborative and separated it from the role of commissioning the evaluation. We were not granted access to the conference, but we were assured – and Vilans was told – that this should not be taken as a precedent for future instances. The evaluation was to be seen as an integral part of the Care for Better collaborative – just not in this instance. This is exactly what happened. We have faced no further problems of access to any event and have been discussing and sharing intensively with Vilans about our and their findings. The point of this example is not to indicate that the relations would in any sense be problematic, but to illustrate that ideas about formative and integrated evaluations may be embraced by all parties but still quite difficult to carry out. Practical problems may enact the project and the evaluation as distinctly separate.

**Conclusions: inherent tensions in explorative research**
In our conclusions we have no solutions to the tensions raised in this chapter. We do not expect ZonMw to have only an integrated definition of Care for Better and of its role as commissioner of program including evaluation. Nor do we critique Vilans for separating their tasks from ours when practical problems emerge. In fact, there were times where project leaders were so eager for feedback from us as evaluators that we had to disappoint them as we ourselves were much less clear about the setting, its problems and possible solutions than they were hoping. We e.g. showed quite some hesitation to answer questions on what 'good indicators' were when we discussed these with the project leaders. We were quite sure that the project leaders should be the ones who define the indicators, also to prevent that when indicators would not work well in the projects, they would be seen as part of the evaluation rather than of the improvement project, creating a further separation between program and evaluation. What we rather want to point out is that we certainly side with the pleas for 'Fourth generation evaluation' (Guba and Lincoln 1989), 'responsive evaluation' (Abma 1995), 'action research' (Senge and

Scharmer 2001) and 'formative evaluation' (Øvretveit 2002) as attempts to move beyond the problematic approach of summatively evaluating improvement practices. However, these more explorative approaches are bound to lead to the kinds of tensions we have explored in this chapter and will continue to explore in the coming years – tensions that need to be reflectively resolved in research practices. They are therefore also bound to be stuck with what Scrivens has called a "poor track record" (Scriven 1991), at least when compared with summative evaluations that are able to provide a very different kind of 'results'. In that sense the evaluation of quality collaboratives faces inherent difficulties that are strikingly similar to those faced by parties carrying out such programs.

# Chapter 9 Conclusion and discussion

## 9.1. Introduction

Quality collaboratives such as Care for Better aim to improve quality, innovation and efficiency in services in the care sectors (i.e. care for the handicapped, care for the elderly and home care). There is great concern for the quality of services in the care sectors as well as for the wide variation in quality of care between care providers. The evaluation study of the Care for Better program raises the question to what extent program and project targets are met and analyses which other effects and consequences the program has. Although intuitively there is much to say for the emphasis on learning from best practices in quality collaboratives, current explanations of the effectiveness of collaborative approaches still leave space for much ambivalence. The Breakthrough method has been one of the major instruments put to use in such collaboratives. In improvement projects, health professionals from different organizations are brought together to work on improving a specific subject area of care.

The assumption of such programs in much of the quality of care literature is that they focus on the implementation process to quickly spread evidence-based practices across care organizations. As we have shown in this report, this is a rather limited way to conceptualize these interventions as they display a plethora of consequences that could hardly be said to be about the 'implementation of evidence-based practices' alone. In improvement projects, much discussion focuses on how best to deal with a particular issue in the practice of a particular care institution. For this the teams are provided with suggestions for good interventions, but are all the more supported in developing fitting solutions, learning from other teams, testing interventions out in PDSA cycles and selectively adopting, transforming and translating interventions to the practices they are part of. In none of the conferences the 'evidence' of 'practices that need to be implemented' was provided. And quite understandably so: this would lead to all kinds of 'implementation problems' that are largely prevented in the present set up.

Whereas a focus on implementing evidence-based practices tends to focus evaluation studies on the question whether targets are met and projects are (cost)effective, the practices of the Care for Better collaborative warrant that this research *both* focuses on whether results are in line with expected effects *and* on the questions of which multitudes of 'effects' are actually produced by the collaborative. This makes the question about how little is known about the differences in program effects between projects and between care sectors that is often raised in the quality of care literature highly pertinent, but requires something that is often left undone: opening the black box of what actually goes on in such programs, analyzing which different ways there are to e.g. 'do' medication safety or the prevention of falls and to which various types of results these different approaches lead. To address these questions, this evaluation study is designed to analyze this plethora of outcomes, processes, costs and their interrelations. Such an assessment consists of a precise analysis of which

interventions are actually done within the collaborative and of course nuances that such an analysis can simply lead to factors that contribute to success or failure of the program or of specific parts of the interventions and at what relative costs. Such an assessment rather offers an analysis of which mechanisms are producing which consequences in the collaborative which will prove to be of more use for the future development of such programs.

### 9.1.1. Leading research questions
The evaluation study aims at making a contribution to existing knowledge on quality collaboratives by looking at the costs and effects (broadly defined) of the Care for Better program at the client, project, organizational and program level.

The leading research questions are as follows:
6. What are the interventions at the program and project levels that are actually performed within the context of the Care for Better collaborative?
7. What are the effects of Care for Better interventions on the primary outcomes at the client, project, organizational and program level?
8. What are the costs and benefits associated with the interventions at the program and project levels and how do these relate to the effects described under (2).
9. Which best practices can be described on the basis of (2) and (how) do these spread across the collaborative?
10. What are crucial success and fail factors at the project, organizational and program level that influence the effect of Care for Better interventions?

The remainder of this chapter addresses the intermediate findings of the evaluation study and what its strengths and shortcomings are. First, the theoretical approach and the research design will be discussed. Next, in section 9.2., the preliminary research findings of the evaluation study are summarized. In section 9.3., some general conclusions are drawn with regard to the effectiveness of Care for Better, including implications of the findings of the evaluation thus far for the next phase of the Care for Better program.

### 9.1.2. Theory
The conceptual model based on the "chain of action" model proposed by Cretin, Shortell, and Keeler (Cretin, Shortell, and Keeler 2004) is the framework underlying the evaluation of the Care for Better Collaborative. It integrates organizational, team-, and individual level factors to help ensure successful use of teams in quality collaboratives. This basic model serves as a heuristic device to link the different layers of the evaluation of the quality improvement initiative.

According to this theoretical framework the proposed chain of action begins with participating organizations and their environment. Contextual factors such as increasing competition and pressure from health plans to improve performance can push organizations to participate in quality collaboratives and set incentives to improve quality. Interventions at the program level (including other contextual factors such as increasing competition) are thought to lead to an innovative organizational culture. Organizations with a commitment to quality and a supportive and innovative culture are assumed to stimulate the motivation of staff to effectively work together in teams, leading to the development and

implementation of system changes that improve processes and, ultimately, client outcomes. However, in contrast with the top down process of innovation in the original framework, our model is dynamic because environmental, organizational context and team functioning are prone to change. The success or failure of Care for Better improvement projects are expected to be mediated by changes in environmental, organizational, team-, and individual level factors and by the interplay between these factors. We assume that where alignment is formed within and between different levels, the program is more successful although we also show that which types of alignments are needed or productive, largely varies according to the type of issue that is addressed in a particular improvement project. This also implies that *what* a supportive and innovative culture *is,* largely varies according to the type of innovation that is worked with. Improving the prevention of decubitus ulcers will require different interconnections between actors and a different innovative culture than working on the prevention of sexual abuse. We therefore are refining the basic 'chain of action' model with specificity about the interrelations between the actors and about the content of the issue that is being addressed.

### 9.1.3. Method
In chapter 3, the research design, data collection methods, and measurement of the key indicators are reported. Moreover, changes in the original design, possible consequences for our conclusions and strategies to improve the validity and reliability of study findings are discussed.

The evaluation involves four levels of analysis. First, the overall level of the Care for Better collaborative with ZonMW and Vilans as acting parties. This program level concerns different improvement projects run by Vilans improvement project leaders and members of the core team. The organizational level refers to the larger organizational context in which one or more improvement teams participate in one or more of the improvement projects. Within each care organization each project on which an improvement team is working is referred to as local project level or improvement team level. Finally, a client level is distinguished to analyze changes in process and outcomes for individual clients.

The methodological approach to study the effects of Care for Better interventions on the primary outcomes at the client, project, organizational and program level involves both qualitative and quantitative research methods.

First, we describe the exact interventions that are done within the program in order to be able to attribute effects to those interventions and also to analyze which different kinds of effects are being produced by the projects – kinds that may not all be visible in the pre-defined results. Second, data is being collected on the effects of the interventions at the client, project, organizational and program level. These data are collected both by improvement teams participating in the Care for Better program and by the researchers. Third, the costs of the interventions are being measured and related to the effects of the program in order to assess the cost-effectiveness of the interventions at the project, organizational and program level. For this intermediate report, a discourse analysis of the plans of action and other documents of the program as a whole and each improvement project was executed, interviews were transcribed and analyzed, (participant) observations were conducted at Care for Better meetings, written

questionnaires were administered among team leaders and team members, and secondary data of external parties on the results of improvement teams were analyzed.

## 9.2. Study findings

The primary objective of the Care for Better program is to make sustainable improvements in the Dutch care sectors. For this purpose a collaborative approach has been chosen in which a targeted 350 care organizations will participate. An adjusted version of the Breakthrough method is used in 6 projects focusing on patient safety (including decubitus ulcers, fall-prevention, sexual abuse, medication safety, aggression and behavioural problems and eating & drinking) and in projects focusing on patient autonomy and control.

As a quality improvement collaborative, the program in its outset claimed to be mainly concerned with the creation of learning environments for the faster uptake of best practices within care organizations. The improvement projects, while important in and of them selves, serve as a stepping-stone to reach this more overarching goal. However, what a best practice is, is often either unknown or when it is known, it is not presented as such. This is an important aspect as this indicates that the Care for Better program, though in theory deploys a *product* definition of 'best practices', it in practice works with a more dynamic notion of good practices that are introduced and presented in order to make other teams learn from the *process* of improvement that these practices represent.

As we did in the chapters of this report, we will in this paragraph follow the structure of the evaluation model to report the preliminary results of the improvement projects.

### 9.2.1. Contextual factors and the Care for Better collaborative

Current trends in the care sector influence the effectiveness of the program. Extensive legislative/political, social/demographic, technological, and competitive changes impact upon the work of the improvement teams. There is little proof that new financing methods in the care sector will result in higher quality care, however. And shifts in care provision to local authorities in fact resulted in huge differences in the quality of care between municipalities. Moreover, increasing competition between care organizations also with regard to quality of health care services delivery has actually been found to be at odds with some of the Care for Better quality improvement initiatives. Also, there is some evidence that indicators used in the current efforts at accrediting care organizations are sometimes at odds with interventions in the Care for Better improvement projects. However, the incentive to participate in Care for Better does involve comparing oneself with other care organizations and teams generally report that the goals of Care for Better are in alignment with the strategic goals of their organization. Also, Vilans has reported an uptake in applicants for Care for Better after one of the large insurance companies created a financial incentive for participating care institutions.

### 9.2.2. Actual interventions and context at the program level

Ethnographic observations provided information on the concrete actions undertaken by the executive parties (ZonMw and Vilans) towards the care institutions on a project- and managerial level and allowed us to articulate issues

that emerge during these sessions. In addition, some ethnographic interviews with Vilans improvement project leaders clarified these observations and gave us information about the set up of their projects, the development, the performance targets, the measurement approach, the roles of the different participants, how 'diffusion' is conceptualized, the progress and the expectations regarding the impact of their improvement project. Also, baseline and end-measurement questionnaires among improvement teams revealed expectations and satisfaction with program level interventions and actors.

Each improvement project distinguished between two basic roles, a methodological role on how to perform improvement projects and an expert role on the theme of the project. Within Care for Better, these roles are to a certain extent combined, as members of the core team, while being supported by an expert team, have had themselves extensive involvement in the theme of the project. The core team of each improvement project provides training and instruction of the improvement teams on conferences and in bilateral contact. In the formal set up of the Breakthrough approach the 'methods' of improvement are separated from the 'interventions', and yet, in practice, these methods are clearly intervening in care practices. Indeed, the program and its methods turn out to be an innovation in its own right, rather than a setting in which the real innovations in care practices can occur.

The observations and interviews clearly support the notion that for the Breakthrough approach to be effective there is a need for combining both methodological and content-based expertise. Although improvement team leaders are highly satisfied with the methodological and content-based expertise of the improvement project core team, less improvement team leaders reported that the core team provided a practical set of improvement indicators to monitor results. The combination of methodological and content-based expertise is all the more needed to come to smart indicators for quality improvement. Also because we see a strong need for team leaders to dive into the complexities of the care practice they are intervening in, as well as into the complexities of the related measurement practices. The methodology of PDSA needs to be combined with a focus on what the *right* solutions are for particular settings.

Interestingly, there seems to be a difference between team members' perception of the ease to 'work' with the improvement method and to 'achieving results' by means of the method. This difference indicates that the relative simplicity and the extent to which Breakthrough is 'packaged' is seen as helpful for working with the approach, which largely contributes to the success of the method. Defining the success of the method in terms of measuring the performance of Breakthrough on an outcome level would lead to quite a different idea about the success of the method.

The collaborative is mainly seen by improvement teams as quality improvement that is not necessarily linked to efficiency gains. This separation of quality and efficiency is widely distributed throughout the collaborative. Most improvement projects therefore are rather loosely coupled to management agendas, which appears to influence the effectiveness of the program. The results the improvement teams realize are, by their own accounts, lower if managers higher in the organizations are not involved in projects and as a likely consequence projects do not address managerial problems. A more direct and continuous involvement by management would therefore prevent many implementation and

sustainability problems. And, because it would allow a better alignment of projects with both contextual and structural changes of the care organization, it could contribute to a more integrated approach to quality improvement and spreading best practices.  What management involvement should be made of however, varies substantially across the improvement projects.

### 9.2.3. The project level of the Care for Better collaborative
Multidisciplinary teams are formed to execute the Care for Better improvement trajectories. The improvement teams filled out questionnaires and were observed during working conferences. The characteristics of the improvement teams influenced the ways in which they manage their project. A lack of involvement of higher management, and not having clients participate in the improvement trajectories stand out as characteristics of Care for Better improvement teams. Although client and managerial involvement are seen as objectives of the Care for Better program, we do not mean to argue that clients should be members of all improvement teams, or management should be supportive in the same manner for all projects. The challenge lies in finding the right fit in client involvement in improving care in relation to the content of the themes in different settings, the issue at stake and the type of clients. Some interesting forms of client involvement in improving care were found and these at times were explicitly placed *outside* of the notion of 'participation'. At times such 'participation' in the improvement teams would simply lead to frustrating experiences for both clients and care professionals. Though some teams seem to be aware of the specifics of client involvement, not all teams were found to be reflexive on this issue. This is of course not supported by the general rhetoric on participation with which improvement practices and the quality of care literature is replete.

        This also applies to management participation. The absence of higher management in improvement teams may at times be seen as a problem and at times the involvement of higher management may be accomplished through other means. First explorations of the effects of characteristics of organizational cultures on the progress and results of improvement teams already showed that different characteristics of organizational culture play out differently for different themes of improvement: depending on the characteristics of issues faced by teams, hierarchical or group cultures could be more effective. As in the case of client and managerial participation in projects, there thus seems to be a need in the program to think of organizational cultures in more diverse ways, related to the issues at hand.

### 9.2.4. Preliminary results of completed projects
The preliminary findings of the first completed projects on Decubitus ulcers, Eating & drinking and Prevention of sexual abuse reveal considerable variation in the point of departure of different improvement teams. The objective outcomes did not only show variation between teams in their effectiveness, but also showed that certain unexpected or side effects occurred. Within the decubitus ulcers improvement project, for example, an increase in ineffective and harmful measures in some teams was found. In the Eating and Drinking improvement project a side effect of the interventions was that in some teams an increase in the number of clients with obesitas was found. In interpreting the outcomes of these projects teams' point of departure, composition of client samples, turnover

between measurements points and comparison with data from non participating care organizations are important aspects to take into account.

Dependent on their strengths and weaknesses, improvement teams could choose from a wide range of activities. And yet, teams were generally encouraged to start working on updating their protocols and stimulating employees to work according to these protocols. While protocol development and implementation may have advantages, the development of protocols may actually be a rather limited intervention in the light of the complexities that care professionals face. Rather, such interventions should be related to addressing the issue at hand. In fact, we found many teams actually doing this and meanwhile displacing the goals of the project to ones that were more attuned with the specifics of their situation, e.g. trying to get more professionals to report on incidents rather than reducing the amount of medication errors. This goal displacement is a common theme in the Care for Better collaborative as it is in other collaboratives, and rather than trying to prevent teams to deviate from the projects' goals, we observe that this displacement, if coupled with an emphasis on accounting for interventions, is actually quite effective in getting teams to work on quality improvement.

Thus far, we found few activities targeted at (medical) professionals such as internal visitation and mirror conversations that may provide helpful feedback on performance of employees and may facilitate development of professional attitudes and competence of employees. As soon as the data on the outcome indicators becomes available we can investigate to what extent the observed effects can actually be attributed to the executed activities.

Even though Decubitus Ulcers and Prevention of sexual abuse improvement projects did not start new activities for client participation, in each of the three improvement projects most team members agree that as a result of the project more attention is paid to clients and an increase in client satisfaction and client safety was realized or at least is expected to occur in the near future.

As for cost savings, team members' strong focus on quality improvement does not involve efficiency as a domain of their definition of quality. This relates to the finding reported above that higher level managers are not participating in the projects and that managerial issues are hardly addressed. We fear that the lack of concern with the 'management problem' of efficiency might jeopardize the relevance of Care for Better at the level of organizations and even at a sector level.

The reported team effectiveness covers objective outcomes (patient satisfaction, patient's functional status etc.) as well subjective outcomes (perceived team effectiveness by team members). Studying effectiveness with objective outcomes on the client level is often limited by problems in data collection among clients and multiple explanations for changes in outcomes. This makes it hard to ascribe the effects to the interventions implemented. For these reasons it is also relevant to study the perceived team effectiveness of team members. By including multiple outcome dimensions in the conceptualization of effectiveness in our study we get a more in depth insight into the relations between perceived and objective effectiveness. Differences between objective and subjective team effectiveness in our study are for example partly due to the shifting of goals during projects.

### 9.2.5. Dilemmas in evaluating quality collaboratives

The drive for quality collaboratives is to stimulate mutual learning by creating 'learning laboratories' within and between healthcare organizations. We have shown in this report that this drive is full of challenges that improvement project leaders try to resolve in practice. Similarly, evaluating such collaboratives remains full of tensions that researchers, Vilans and ZonMw practically try to resolve as the research proceeds. These tensions include the role of the researcher as well as the commissioner of the evaluation vis-à-vis the program. As to the evaluators' role, on the one hand, researchers feel the need to contribute to the overall objectives of collaboratives by feeding back their findings, facilitating both their better understanding of what is going on in the collaboratives as well as enabling participants to learn from their analyses. Though being seen as state of the art evaluation research, such approaches at times have a rather bad name within the healthcare literature, because they obscure the separation between program and evaluation and complicate the independent assessment of program effects. In the context of Care for Better, attempts to move beyond the problematic approach of merely summatively evaluating improvement practices are embraced by both the iBMG, Vilans and ZonMw. Still this leaves the kinds of tensions such research practices pose to be resolved in practice. These tensions are also felt at the level of the commissioner of the evaluation and the program, as ZonMw sometimes (has to) prioritize the execution of the program over its evaluation in those instances where these might conflict. For our evaluation of the Care for Better program, while at the start there have been some tensions between the evaluation and the program, these have been largely resolved. The occurrence of such dilemmas should not be taken as interfering with the evaluation, but are normal occurrences in the evaluation of large scale quality programs.

### 9.3. Discussion

### 9.3.1. Theory and methodology

Many of the findings are consistent with the framework underlying the evaluation of the Care for Better Collaborative. This model appeared to be well equipped as a heuristic device to address the chain of actions between environmental, organizational, team-, and individual level factors, though we see the need to refine it with sensitivity for the interrelations between the factors and for the content of the issue that is being improved. Contextual factors such as increasing competition and pressure from health plans to improve performance appear to play a role in the wish to participate in Care for Better. The primary goal of interventions at the program level is to lead to an innovative organizational culture. However, evidence to support the notion that organizations with a commitment to quality and a supportive and innovative culture are assumed to stimulate the motivation of staff to effectively work together in teams, leading to the development and implementation of system changes that improve processes and, ultimately, client outcomes is still very preliminary. Further, we stress the need to focus on the types of cultures that are supportive for stimulating the innovation on different topics. A group culture may not be most supportive for improving more managerial domains. Moreover, dynamics of the model still need elaboration also to get a grip on those changes in environmental, organizational,

team-, and individual level that need to be aligned to improve the effectiveness of the Care for Better improvement projects.

Perhaps one of the most promising results of the evaluation study thus far, is the consistent pattern of findings in the qualitative and quantitative data. The qualitative data do in fact support the quantitative findings and vice versa. But the mixed method approach is not merely a way to validate findings by triangulation. The qualitative data also guide the quantitative analyses by telling us which relations are particularly interesting to describe, whereas the quantitative data enable us to generalize the qualitative findings to other situations and populations. Thus far, the complementary and theoretically consistent patterns of the qualitative and quantitative study findings suggest that the conclusions of our evaluation study will be relatively robust.

Some methodological limitations of the current study are noteworthy, however. First, with regard to the measurement of quality of life at the client level. As described in chapter 3 it was not possible to collect data on quality of life on the client level for all improvement projects. This limits the comparison of the cost-effectiveness of the different projects. On the one hand those improvement projects and rounds that are finished cannot be compared. On the other hand, for those projects in which we can collect data on quality of life, we can only use aggregated project level data, since only two to three clients per team were interviewed. In analyzing aggregated data careful interpretation is warranted to prevent making an error of interference, also known as ecological fallacy. Second, it turns out to be very difficult to include control groups. Quality improvement in the participating organization may partly be caused by contextual effects outside the circle of influence of Care for Better. Without comparing data with non participating organizations it is difficult to test the true impact of the program and rule out confounding factors.

### 9.3.2. Implications for Care for Better

For the Breakthrough approach to be effective it seems crucial to combine both methodological and content-based expertise. If team leaders are able to dive into the complexities of the care practice they are intervening in, as well as into the complexities of the related measurement practices they are most likely to turn the improvement project into a success.

An important implication of the findings of this study is that we need the right fit in involving clients in improving care in relation to the content of the themes in different settings, the issue at stake and the type of clients. This also holds for the involvement of management. Both the involvement of higher management and of clients may be accomplished through other means then participation in project teams. We suggest to shift the discussion on involvement from the direct participation by these actors as a moral demand, to a productive and strategic alignment of these actors to the improvement goals.

For the effects of organizational cultures on the progress and results of improvement teams, different characteristics of organizational culture play out differently for different themes of improvement: depending on the characteristics of issues faced by teams, hierarchical or group cultures could be more effective. It is therefore necessary to think of organizational cultures in more diverse ways, related to the issues at hand.

Rather than one-sidedly focusing on quality improvement, we believe it is necessary to set the 'management problem' of efficiency high on the agenda as well. The relevance of Care for Better at the level of organizations and even at a sector level will be judged in terms of effectiveness as well as efficiency gains. Moreover, a more direct and continuous involvement by management would prevent many implementation and sustainability problems.

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# Appendices Chapter 5

Table A5.2a. Helpfulness of Care for Better activities (Mean and (SD))
(T1 questionnaire team members)

|  | Decubitus ulcers N=21 | Eating and Drinking N=44 | Prevention sexual abuse N=18 | **Total** **N=83** |
|---|---|---|---|---|
| Conferences | 3.74 (.56) | 3.74 (.98) | 4.09 (.70) | 3.79 (.84) |
| Forum discussions on extranet | 2.80 (.45) | 3.21 (1.13) | 2.83 (.41) | 3.10 (.99) |
| Visit to other collaborative teams | 3.00 (1.10) | 2.64 (1.82) | 3.40 (1.14) | 2.88 (1.54) |
| Advisory telephone contact with coreteam advisor | 4.00 (.58) | 3.52 (1.16) | 3.91 (.79) | 3.74 (.96) |
| running PDSA-cycles | 4.09 (.54) | 3.77 (.82) | 4.33 (.78) | 3.98 (.78) |

5-point scale ranging from 1) not at all to 5) a great deal

Table A5.2b. Helpfulness of Care for Better activities (Mean and (SD))
(T1 questionnaire team leader)

|  | Decubitus ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | **Total** **N=28** |
|---|---|---|---|---|
| To what extent did the Care for Better program help you in planning and implementing change? | 3.86 (.38) | 4.14 (.36) | 4.33 (.52) | 4.11 (.42) |
| To what extent were the monthly reports helpful in planning and implementing change? | 3.50 (.84) | 3.86 (.77) | 4.17 (.41) | 3.84 (.73) |

5-point scale ranging from 1) not at all to 5) a great deal
% (totally) agree, answer categories 4 and 5

Table A5.3a. Expectations of Care for Better (Mean and (SD))
(T0 questionnaire team members)

| The methods and interventions of Care for Better… | T0 measurement | | | | | | |
|---|---|---|---|---|---|---|---|
| | Autonomy Physically Handicapped N=13 | Autonomy Mentally Handicapped N=32 | Autonomy Residential Care homes N=23 | Fall Prevention N=45 | Medication Safety N=65 | Problem Behavior N=32 | **Total** **N=210** |
| are applicable to our pilot division(s) | 3.50 | 4.19 | 4.09 | 4.00 | 4.11 | 3.94 | 4.03 |
| | (.80) | (.74) | (.42) | (.65) | (.47) | (.68) | (.62) |
| meet our needs | 3.50 | 4.13 | 4.00 | 3.89 | 4.03 | 3.80 | 3.95 |
| | (.85) | (.81) | (.74) | (.65) | (.62) | (.92) | (.74) |
| are brought in an appropriate way | 3.18 | 3.87 | 3.74 | 4.07 | 3.84 | 3.51 | 3.80 |
| | (.87) | (.82) | (.81) | (.59) | (.73) | (.78) | (.77) |
| are well-organized | 2.91 | 3.71 | 3.61 | 3.98 | 3.78 | 3.67 | 3.73 |
| | (1.14) | (.90) | (.74) | (.79) | (.74) | (.92) | (.85) |
| The project has a positive balance in costs and benefits | 3.36 | 3.17 | 3.30 | 3.43 | 3.53 | 3.50 | 3.41 |
| | (.81) | (.65)* | (.80) | (.85)*** | (.80)** | (.90) | (.81) |
| I see risks related to the project | 2.70 | 2.39 | 2.65 | 2.57 | 2.46 | 2.60 | 2.53 |
| | (1.16) | (1.02) | (1.09) | (.91) | (1.0) | (.86) | (.97) |
| The theme of the project is relevant to our division(s) | 4.31 | 4.56 | 4.39 | 4.48 | 4.55 | 4.40 | 4.48 |
| | (.85) | (.50) | (.58) | (.59) | (.80) | (.81) | (.70) |
| Project results will be observable | 3.20 | 4.00 | 4.00 | 3.88 | 4.21 | 3.87 | 3.98 |
| | (1.03) | (.60) | (.55) | (.82) | (.66) | (.82) | (.75) |
| It is difficult to learn the improvement method | 2.50 | 2.25 | 2.90 | 2.33 | 2.45 | 2.48 | 2.45 |
| | (.80) | (.80) | (1.22) | (.64) | (.95) | (1.09) | (.93) |
| It is difficult to implement the improvement method | 3.00 | 3.32 | 3.19 | 2.55 | 2.81 | 2.87 | 2.89 |
| | (.89) | (1.08) | (.98) | (.79) | (1.10) | (1.23) | (1.06) |

5-points scale totally disagree (1) to totally agree (5) *n=23 **n=43 ***n=35

Table A5.3b. Expectations of Care for Better (Mean and (SD))
(T1 questionnaire all team members)

| The methods and interventions of Care for Better… | T1 measurement | | | |
| --- | --- | --- | --- | --- |
| | Decubitus ulcers | Eating and Drinking | Prevention sexual abuse | Total |
| | N=21 | N=44 | N=18 | N=83 |
| are applicable to our pilot division(s) | 4.29 | 4.04 | 4.39 | 4.21 |
| | (.90) | (.64) | (.78) | (.70) |
| meet our needs | 4.09 | 4.00 | 4.28 | 4.15 |
| | (1.0) | (.74) | (.83) | (.78) |
| are brought in an appropriate way | 3.95 | 4.22 | 4.22 | 4.10 |
| | (.80) | (.60) | (.94) | (.74) |
| are well-organized | 4.09 | 4.22 | 4.22 | 4.16 |
| | (.77) | (.60) | (.94) | (.74) |
| The project has a positive balance in costs and benefits | 4.61 | 3.57 | 3.54 | 3.67 |
| | (1.28) | (.59) | (1.05) | (.79) |
| I see risks related to the project | 2.86 | 2.48 | 2.25 | 2.54 |
| | (.91) | (.90) | (.77) | (.87) |
| The theme of the project is relevant to our division(s) | 4.43 | 4.26 | 4.56 | 4.41 |
| | (.75) | (.45) | (.51) | (.63) |
| Project results will be observable | 4.33 | 4.35 | 4.17 | 4.34 |
| | (.80) | (.49) | (.71) | (.67) |
| It is difficult to learn the improvement method | 2.6 | 2.45 | 2.17 | 2.51 |
| | (.88) | (.96) | (.79) | (.88) |
| It is difficult to implement the improvement method | 3.05 | 2.83 | 2.39 | 2.90 |
| | (.86) | (1.03) | (.85) | (.98) |

5-points scale totally disagree (1) to totally agree (5) **n=43 ***n=35 [#]n=23)

Table A5.4a. Expected positive and negative effects (Mean and (SD))
(T0 questionnaire team members)

| Participating in Care for Better will … | T0 measurement | | | | | |
|---|---|---|---|---|---|---|
| | Autonomy Physically Handicapped N = 13 | Autonomy Mentally Handicapped N = 32 | Autonomy Residential Care homes N =23 | Fall Prevention N = 45 | Medication Safety N = 65 | Problem Behavior N =32 |
| lead to more workload | 4.42 (1.88) | 4.09 (1.38) | 4.39 (1.37) | 4.27 (1.29) | 4.75 (1.31) | 4.13 (1.50) |
| provide me with more energy to execute my tasks | 4.18 (1.25) | 5.06 (1.09) | 5.22 (.95) | 4.91 (.92) | 5.18 (.93) | 5.00 (1.39) |
| give me more uncertainty in executing my tasks | 1.83 (1.11) | 2.09 (1.0) | 2.83 (1.47) | 2.33 (1.22) | 2.17 (1.30) | 2.10 (1.22) |
| lead to more stress in executing my tasks | 2.33 (1.30) | 2.56 (1.46) | 3.26 (1.60) | 2.47 (1.39) | 2.77 (1.43) | 2.52 (1.36) |
| enable me to exercise control over care processes | 4.58 (1.16) | 4.53 (.98) | 4.91 (1.16) | 5.00 (1.15) | 5.26 (1.06) | 4.87 (1.23) |

* 7-points scale ranging from totally disagree (1) to totally agree (7)


Table A5.4b. Expected positive and negative effects (Mean and (SD)
(T1 questionnaire team members)

| Participating in Care for Better will … | T1 measurement | | |
|---|---|---|---|
| | Decubitus ulcers N=21 | Eating and Drinking N=44 | Prevention sexual abuse N=18 |
| lead to more workload | 4.61 (1.36) | 3.43 (1.47) | 3.72 (1.81) |
| provide me with more energy to execute my tasks | 5.05 (1.07) | 5.04 (1.19) | 5.44 (1.34) |
| give me more uncertainty in executing my tasks | 2.29 (1.06) | 2.39 (1.31) | 2.61 (1.50) |
| lead to more stress in executing my tasks | 2.86 (1.49) | 2.39 (1.44) | 2.83 (1.29) |
| enable me to exercise control over care processes | 4.81 (1.12) | 4.96 (1.15) | 5.28 (1.18) |

* 7-points scale ranging from totally disagree (1) to totally agree (7)

Table A5.5. Sustainability (Mean and (SD))
(T1 questionnaire team leaders)

| Sustainability is taking care of by.. | Decubitus ulcers N = 7 | Eating and Drinking N =15 | Prevention sexual abuse N=6 | Total N =28 |
|---|---|---|---|---|
| writing down new working methods in procedures and protocols | 5.71 (1.50) | 6.13 (.64) | 6.33 (.82) | 6.07 (.94) |
| recording the testing of new working methods in our planning en control cycle | 5.57 (.98) | 5.73 (1.03) | 5.40 (1.95) | 5.63 (1.18) |
| structural measurement of performance indicators | 5.71 (.95) | 5.67 (.98) | 5.17 (.98) | 5.57 (.96) |
| education and instruction of new employees | 5.86 (.90) | 5.47 (.99) | 6.17 (.75) | 5.71 (.94) |
| appointing of process manager | 5.71 (.76) | 4.47 (1.88) | 5.17 (2.14) | 4.93 (1.76) |
| distributing posters, flyers and other information material | 5.29 (1.11) | 4.47 (1.92) | 5.17 (1.17) | 4.82 (1.61) |
| formulating quality improvement as a fixed point on the agenda of our working meetings | 4.86 (1.57) | 5.27 (1.10) | 5.83 (1.60) | 5.29 (1.33) |
| formulating quality improvement as a fixed point in our job performance interviews | 3.86 (1.07) | 3.87 (1.88) | 6.33 (.82) | 4.39 (1.81) |
| selecting employees based on their motivation concerning client safety | 3.86 (1.07) | 3.79 (2.01) | 6.33 (.82) | 4.37 (1.88) |
| selecting employees based on their knowledge / experience with improvement projects | 3.29 (1.38) | 3.47 (1.73) | 4.67 (2.07) | 3.68 (1.74) |
| social control | 4.71 (1.38) | 4.40 (1.88) | 5.50 (1.76) | 4.71 (1.74) |

*7-points scale ranging from totally disagree (1) to totally agree (7)
% agree = score 5, 6 or 7

Table A5.6. Spread of changes and the Care for Better method (Mean and (SD))
(T1 questionnaire team leaders)

| | Decubitus ulcers N=7 | Eating and Drinking N=15 | Prevention sexual abuse N=6 | Total N=28 |
|---|---|---|---|---|
| spread of changes to other parts of the organisation | 3.00 (.71) | 3.77 (.93) | 2.83 (.41) | 3.38 (.88) |
| spread of Care for Better method to other subjects | 3.17 (1.17) | 3.14 (1.29) | 3.17 (.98) | 3.15 (1.16) |
| spread of Care for Better method to other parts of the organisation | 2.83 (1.17) | 2.92 (1.0) | 2.50 (1.05) | 2.81 (1.02) |

5-point scale ranging from 1) totally disagree to 5) totally agree
% agree, answer categories 4 and 5

# Appendices Chapter 6

## Table A.6.1 Education of team members

|  | Frequency | Percent | Valid Percent |
|---|---|---|---|
| No education | - | - | - |
| Primary education | 6 | 2.0 | 2.1 |
| Lower secondary education | 24 | 8.2 | 8.4 |
| Upper secondary education | 88 | 30.0 | 30.7 |
| Higher general secondary education | 15 | 5.1 | 5.2 |
| Lower tertiary education | 101 | 34.5 | 35.2 |
| Higher tertairy education | 53 | 18.1 | 18.5 |
| Total | 287 | 98.0 | 100.0 |
| Missing      System | 6 | 2.0 |  |
| Total | 293 | 100.0 |  |

## Table A.6.2. Working hours per week

|  | Frequency | percent |
|---|---|---|
| 1-8 hours | - | - |
| 8-15 hours | 5 | 1.7 |
| 15-22 hours | 30 | 10.2 |
| 22-29 hours | 68 | 23.2 |
| 29-36 hours | 106 | 36.2 |
| 36 or more hours | 84 | 28.7 |
| Total | 293 |  |

## Table A.6.3. Period working in this organisation

|  | Frequency | Percent |
|---|---|---|
| Less than 6 months | 4 | 1.4 |
| 6 months – 1 year | 10 | 3.4 |
| 1 – 3 years | 36 | 12.3 |
| 3 – 5 years | 47 | 16.0 |
| 5 – 10 years | 78 | 26.6 |
| More than 10 years | 118 | 40.3 |
| Total | 293 |  |

## Table A.6.4. Dominant organisational culture

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | group culture | 117 | 39,9 | 41,6 | 41,6 |
|  | developmental culture | 59 | 20,1 | 21,0 | 62,6 |
|  | hierarchical culture | 62 | 21,2 | 22,1 | 84,7 |
|  | rational culture | 43 | 14,7 | 15,3 | 100,0 |
|  | Total | 281 | 95,9 | 100,0 |  |
| Missing | System | 12 | 4,1 |  |  |
| Total |  | 293 | 100,0 |  |  |

## Table A.6.5. Group Innovation Inventory

(T0 and T1 questionnaire improvement team members)

| | N | Mean | SD | % agree |
|---|---|---|---|---|
| In this organization policies and procedures often stop the implementation of good ideas | 284 | 2,5458 | ,97749 | 17.6 |
| people in our team feel that they are all pulling together for a common goal | 283 | 4,1166 | ,72237 | 85.2 |
| risk taking is encourages in this organization | 279 | 2,9892 | ,79786 | 25.8 |
| in our team we typically try to avoid conflicts (R) | 283 | 2,8339 | ,99144 | 24.4 |
| management provides rewards en recognition for innovation and trying new things | 279 | 3,4014 | ,78895 | 49.5 |
| our team has a strong belief in the importance of hard work | 282 | 3,4858 | ,76963 | 51.1 |
| responsibility for making things happen is delegated to the lowest level possible in this organization | 279 | 2,7455 | 1,07444 | 25.1 |
| there is a willingness on the part of people in our team to share the credit for successes with each other | 284 | 4,2077 | ,67448 | 90.5 |
| mistakes are a normal part of trying something new | 284 | 4,2606 | ,70012 | 90.1 |
| people in our team encourage one another to understand how people in other organizations look at problems | 279 | 3,6093 | ,84055 | 62.0 |
| successful innovation is important for career success in this organization | 281 | 3,0249 | ,87592 | 28.8 |
| people in this team are willing to cut through bureaucracy in order to get things done | 281 | 3,9609 | ,59931 | 84.0 |
| people have great freedom to act to make necessary changes | 283 | 3,5371 | ,79529 | 56.5 |
| there is a lack of teamwork in our team (R) | 283 | 1,9488 | ,98483 | 8.9 |
| the attitude around here is that when you are trying new things, mistakes are a normal part of the job | 281 | 3,7189 | ,83834 | 65.8 |
| in our team there is a great deal of openness in sharing information | 284 | 4,2148 | ,66167 | 89.4 |
| people in our team encourages each other to try new things | 283 | 3,9682 | ,64333 | 78.4 |
| meeting deadlines is very important in this team (R) | 284 | 3,1937 | ,87838 | 35.9 |
| decisions in our team are made quickly | 282 | 3,5000 | ,83623 | 55.0 |

| | | | | |
|---|---|---|---|---|
| there are mixed messages about what is important in our team | 282 | 2,0709 | ,94055 | 10.3 |
| management encourages people to try new things | 281 | 3,4270 | ,83400 | 51.2 |
| members of our team listen carefully to the views of others | 284 | 3,9930 | ,65654 | 82.7 |
| people are given the time and resources to innovate | 281 | 3,1851 | ,87500 | 40.6 |
| in our team we expect others to take initiative and get things done even if a person is not formally responsible | 282 | 3,6738 | ,77777 | 64.5 |
| our team is flexible and adapts quickly to new opportunities | 281 | 3,8434 | ,66845 | 75.1 |
| in our team we try to reach a consensus about important decisions | 282 | 4,1348 | ,56870 | 89.7 |
| people feel that it is important to challenge the status quo | 274 | 3,1606 | ,79590 | 34.3 |
| people in our group have a difficult time accepting criticism (R) | 284 | 2,2042 | ,88998 | 8.5 |
| in general, it is better to be safe than sorry around here (R) | 281 | 2,7011 | ,89221 | 18.9 |
| once a decision is made, we implement it quickly | 283 | 3,5512 | ,77644 | 57.2 |
| our team has sufficient autonomy to implement new ideas without clearance from above | 282 | 3,2908 | ,96589 | 47.9 |
| there is a shared vision about what we are trying to accomplish here | 283 | 3,4629 | 1,07907 | 63.6 |
| in general, people have a positive attitude about the need to continuously change | 282 | 3,4645 | ,80952 | 55.0 |
| conflict is expected and accepted a normal part of getting things done | 281 | 3,1317 | ,82403 | 33.5 |
| the organization invests enough in training and updating people's skills | 281 | 3,3310 | 1,05597 | 53.0 |
| entrepreneurial skills are important if you are going to be successful in this group | 282 | 3,3191 | ,92663 | 47.5 |

R = reversed item

# Appendices Chapter 7

Table. A.7.1 Number of clients receiving ineffective measures

| Team | Baseline Measurement = A | Intermediate measurement | End Measurement = B | Absolute difference between end and baseline (B – A) |
|---|---|---|---|---|
| 1 | 4 | 5 | 4 | - |
| 2 | 9 | 13 | 17 | +8 |
| 3 | 19 | 38 | 38 | +19 |
| 4 | 45 | 14 | 9 | -36 |
| 5 | 10 | 31 | 27 | +17 |
| 6 | 19 | 16 | 20 | +1 |
| 7 | 15 | 16 | 33 | +18 |
| 8 | 9 | 4 | - | |
| 9 | 22 | 19 | 27 | +5 |
| 10 | 30 | 21 | 18 | -12 |
| 11 | 18 | - | 9 | -9 |
| 12 | 12 | 15 | 6 | -6 |
| 13 | 18 | - | 21 | +3 |
| 14 | 8 | 9 | - | |
| 15 | 31 | - | 23 | -8 |

Table A.7.2. Number of clients receiving harmful measures

| Team | Baseline Measurement = A | Intermediate measurement | End Measurement = B | Absolute difference between end and baseline (B – A) |
|---|---|---|---|---|
| 1 | 1 | 0 | 3 | +2 |
| 2 | 7 | 13 | 18 | +11 |
| 3 | 0 | 20 | 34 | +34 |
| 4 | 15 | 1 | 0 | -15 |
| 5 | 5 | 14 | 9 | +4 |
| 6 | 3 | 5 | 2 | -1 |
| 7 | 4 | 1 | - | |
| 8 | - | 9 | 19 | |
| 9 | 17 | 13 | 19 | +2 |
| 10 | 29 | 8 | 8 | -21 |
| 11 | 3 | - | - | |
| 12 | - | 2 | - | |
| 13 | 16 | - | 4 | -12 |
| 14 | 10 | 15 | 1 | -9 |
| 15 | 23 | 14 | 18 | -5 |