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CLINICAL MICROSYSTEMS: AN EVALUATION

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EXECUTIVE SUMMARY

The commissioning specification for this project identified two primary aims:

- To gain feedback on the developing role of CMS in the strategy for building local improvement capability;
- To derive specific learning as to the value of CMS in providing spread, sustainability and service transformation in the NHS.

The project adopted a 'realistic evaluation' approach using case studies of CMS implementers, each incorporating summative and formative aspects. Case studies included within the evaluation were drawn from three service improvement programmes with overlapping timescales. Of the six case studies conducted:

- Five had attended workshops introducing CMS and enabling experiences to be shared with other CMS adopters;
- All six had established protected time to meet as a microsystem to identify areas for change and improvement;
- Four reported having conducted a formal survey of microsystem members (although not always using the CMS survey instrument);
- Two had formally elicited the views and opinions of patients and service users and a further site had done this on a more ad hoc, opportunist basis;
- Five had taken time to map systems, processes and roles (although again not always using existing CMS tools);
- Only one of the six sites was able to make available data relating to patterns in performance and/or activity.

The most common area of focus was on members of the microsystem – the 'People' dimension of the 5 Ps. The next most common activity involved adjustments to routine systems and practices – the 'Process' component. By comparison, the focus on 'Patients' had been relatively modest in most cases and very little data on 'Patterns' was made available.

Although the CMS 'resource kit' had relatively little impact or perceived use-value, a number of other factors were seen as essential facilitators of effective implementation.

These were:

- The emphasis on 'small steps' and the absence of ambitious aims and expectations;
- Flexibility and a resulting sense of ownership and freedom from external monitoring and sanction;
- Internal leadership and the support of all members of the microsystem, and;
- Support from within the host organisation and the CMS programme.

A number of benefits of implementing CMS were widely cited, including:

- Improved communication, motivation and team morale;
- Empowerment and involvement of individual team members in service improvement initiatives;
- Greater awareness of the service's functions and individual roles in delivering these;
- A shift in culture towards a more active approach to improvement, and;
- A greater capacity to absorb and manage externally imposed change and upheaval.

Disbenefits identified by some respondents included:

- The frustration of identifying problems that prove to be either irresolvable within the microsystem or contrary to broader policy or directions of travel, and;
- The time and capacity taken up in implementation of CMS.

Overall, based on the testimony of those involved in its implementation, there are clear strengths of CMS as an approach to local service improvement. The flexibility of CMS offers an implicit recognition that solutions cannot be universally applied or transferred mechanistically across differing contexts. Given the multiplicity of ways in which CMS may be interpreted, the question is not whether CMS 'works' as an improvement methodology, but instead who it works for, when and how.

Some concerns were expressed about the sustainability or succession of developments which had been achieved. These related to:

- Reliance on the leadership and efforts of a small number of individuals. For example, in one site a key advocate had recently moved and this was seen as posing a threat to continuation;
- The absence of resources to support the process;
- The absence of a national profile to ensure host organisations facilitate and support the CMS process, and;
- The build up of conflicting priorities and pressures.

Continuation will only occur when the approach is perceived as effective by those engaged in the process and there is evidence demonstrating impact. Thus, there is an important role for the measurement of the latter, not only within the individual application, but for the future credibility of CMS as an approach within the NHS as a totality. This, along with the need to place patients at the centre of the process, was the main area identified as requiring of attention.

1. INTRODUCTION

This document reports findings from an evaluation of Clinical Microsystems (CMS) as an approach to health services improvement. It begins with a brief description of CMS and its location within a broader literature on improvement and performance. This is followed by a discussion of the aims, objectives and methodology of the evaluation. Main findings are then presented and key themes discussed in the light of broader organisational studies literature. Finally, conclusions and a series of recommendations are provided.

2. BACKGROUND AND LITERATURE

2.1 Clinical Microsystems

Improvement is a broad term and may be interpreted in a number of ways, with a vast literature which also incorporates discourses of change and organisational effectiveness. Given the difficulties in gaining access to such a broad literature base, Goes *et al* (2000) organise it along three dimensions: *level of change* (i.e. within the organisation or industry); *type of change* (i.e. degree of change); and, *mode of change* (i.e. top-down or bottom-up). Drawing on this literature within the context of healthcare, Ferlie and Shortell (2001) focus on the level of change, suggesting four specific levels:

- The individual;
- The group or team;
- The overall organisation; and
- The larger system or environment in which individual organisations are embedded.

Denis *et al* (1999) argue that operating units form the *de facto* elementary structures of healthcare organisations – that is the level of the group or team. This concept has been developed under the ‘microsystem’ label, and has emerged as a focus for clinical quality improvement work (Institute of Medicine 2001, Nelson *et al.* 2002). Microsystems are the smallest replicable unit within an organisation, having their own human, financial and technological resources (Quinn, 1992). Ferlie and Shortell (2001) note that while the potential of teams as a lever for change has been recognised for some time (Pettigrew *et*

al., 1992), the microsystem concept has emerged as the focus for much health quality improvement work recently.

In a health care context, microsystems are the:

'Small, functional, front-line units that provide most health care to most people. They are the essential building blocks of larger organisations and of the health system. They are the place where patients and providers meet. The quality and value of care produced by a large health system can be no better than the services generated by the small systems of which it is composed'. (Nelson et al., 2002: 473).

Thus, they are the building blocks of larger organisational forms. Microsystems have *'clinical and business aims, linked processes, and a shared information environment, and it produces performance outcomes'* (Nelson et al., 2002: 474). The clinical microsystems approach involves having an in-depth understanding of the team and its associated structures and processes, so that this might identify areas for action around improvement.

Much of the evaluation literature surrounding clinical microsystems has come from a US context, where the Dartmouth Hitchcock Medical Centre has produced a series of nine papers based almost exclusively on two studies. Nelson et al., (2002) reported a study of 20 high-performing clinical microsystems from across North America drawn from five categories: primary care, specialty care, inpatient care, nursing home care, and home health care. The authors draw quite strong conclusions, particularly given that they studied just 20 sites out of the 'tens of thousands' (Nelson et al., 2002: 486) of clinical microsystems which operate across the US. Nevertheless, they identify nine characteristics of successful microsystems (2002: 485-6):

- Leadership;
- Culture;
- Organisational support;
- Patient Focus;
- Staff focus;
- Interdependence of care team;

- Information and information technology;
- Process improvement, and;
- Performance patterns.

The study found substantial variation in the frequency with which each characteristic was mentioned by interviewees from the microsystems, which suggested that the balance of success characteristics differed across the five clinical settings.

The most highly rated characteristic was that of process improvement, which together with the other characteristics is associated by the Dartmouth Hitchcock School with high quality performance. However, there is little evidence of the effectiveness of the clinical microsystems approach in the NHS available within the literature. Therefore a pilot to test the clinical microsystems approach within this context was started in November 2003 with eight teams spread across six different Strategic Health Authorities. There were mixed responses within these pilots, with some teams embedding this as an improvement approach, and others losing momentum with the process. A further number of programmes have extended the number of teams using this approach to around 100.

2.2 Approaches to improvement and the engagement of staff

In section 2.1 we outlined Ferlie and Shortell's (2001) four levels of change (individual / group or team / organisation / wider system). The authors also highlight the idea that effective improvement must be successful at all these levels, and not just one or two. Today the NHS is just over halfway through a ten-year programme which was formally outlined in *The NHS Plan* (Secretary of State for Health, 2000). Alongside unprecedented investment in the NHS, the Labour government outlined the need for the overhaul of the health system and to ensure that services are driven by cycles of continuous improvement. Bate *et al.*, (2004a: 8) estimate that just 15 to 20 per cent of NHS staff are currently actively engaged in quality improvement work - yet in order to achieve the goals set out in *The NHS Plan*, Bate and colleagues suggest that it will require 80 or 100 per cent staff engagement. Thus, '*the next step of the NHS modernisation journey is about making improvement mainstream; transforming patient care by building improvement into everyday work at every level of the system*' (Bevan,

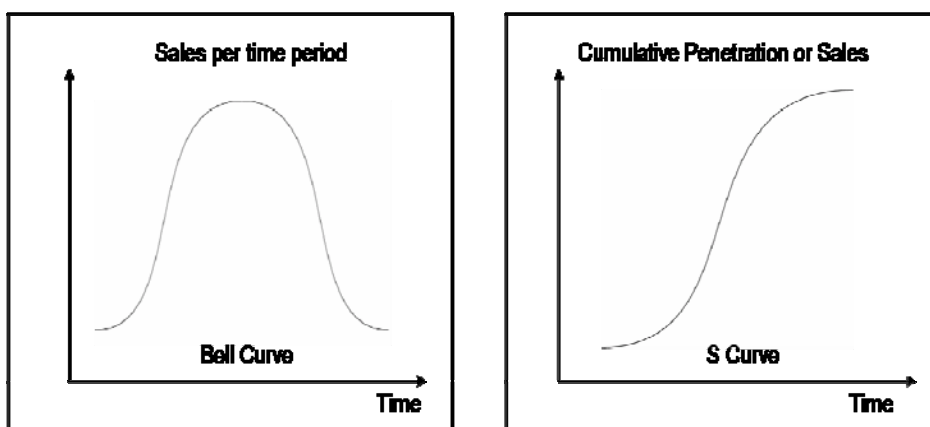
2004). Therefore, the next step in terms of NHS improvement is about having improvement embedded into the everyday activities of all staff.

Greenhalgh *et al.*, (2004: 33) suggest, '*the sheer size and complexity of the NHS mitigate against the rapid and consistent introduction of improvements in service delivery and organisation across the board*'. Drawing on this concept, in the past, the strategy of the Modernisation Agency (MA) tended to support change in a focused area, concentrating on the spread and dissemination of learning in the hope of reaching a 'tipping point' (Gladwell, 2000) for catalysing positive change. The logic of the tipping point approach, i.e. that by engaging a sufficient number of individuals this will produce wider change, is broadly based on Everett Rogers' (1995) theory of the 'diffusion of innovation'. The central tenet of this theory is that the adoption of new ideas by a population follows a predictable pattern. According to Rogers, the adopters of any new innovation or idea can be categorised into

- Innovators (2.5%);
- Early adopters (13.5%);
- Early majority (34%);
- Late majority (34%); and,
- Laggards.

The theory is based on a bell curve (see figure 1), which, when presented as a cumulative distribution of a fixed population, is seen as an S-curve. Thus, essentially the aim of the MA tended to concentrate on the innovators and the early adopters - in the hope that they could encourage the rapid approach of the tipping point and disseminate improvements throughout an entire population.

Figure 1: Bell curve and S-curve distributions



However, there are difficulties with this theory, not least a failure to consider the wider institutional forces which may be acting upon individuals. Henrich (2001) suggests that an R-shaped curve may actually be a more accurate reflection of diffusion, where it occurs by a mimetic function, rather than the rational weighing up of costs and benefits.

In the transition period between the NHS Institute for Innovation and Improvement (NHS III) superseding the MA in July 2005, it was suggested that improvement within the NHS was not advancing quickly enough;

'The picture painted is one of widespread, energetic (sometime almost frenetic) improvement activity at project team level but limited strategic co-ordination and purposeful direction at the level of the organisation. Furthermore, the prevalence style of project leaders is 'pragmatic activism'. NHS improvement work is typically under conceptualised and often lacks reflection and analysis' (Bate et al., 2004a: 8).

Bevan (2004) added that, *'a plethora of small projects do not typically scale up to whole organisation change'*. Thus, in the transition to the NHS III, it was recognised that a larger proportion of individual staff members needed to be involved in the improvement process. As was earlier suggested, improvement is seen as requiring all – or nearly all – staff members to be engaged within this process. Thus, the NHS III suggests that more widespread engagement by staff members of all levels will more effectively embed continuous improvement processes within the NHS.

The theory underpinning widespread staff engagement relates to that of the social movements literature (Bate et al. 2004a, Bate et al. 2004b). Social movements theory is thought to be useful to the NHS in mobilising staff members around 'theoretical ideas' or aspirations. Examples of these kinds of ideas or aspirations are 'there are no avoidable deaths', 'care is given in the right place at the right time' and 'different organisations' leaders trust each other' (Bate et al., 2004a: 45). In other words, individuals are mobilised into action by appealing to emotional, social and relational, rather than simply technical or normative factors. In essence the aims look very similar to taking an outcomes-orientated approach to service provision (Ball et al., 2004). This view of improvement removes the focus from the traditional structures for service delivery, encouraging managers and clinicians to think about different ways of delivering services.

An approach derived from social movements theory also shifts the locus of change from a top-down to a bottom-up grassroots approach; that is, change is not imposed on individuals and organisations, but rather is formed and owned by the individuals charged with implementation. In this sense, the concept of clinical microsystems is entirely consistent with the agenda laid out by the NHS III.

3. AIMS AND OBJECTIVES

The commissioning specification for this project identified two primary aims:

- To gain feedback on the developing role of CMS in the strategy for building local improvement capability, and;
- To derive specific learning as to the value of CMS in providing spread, sustainability and service transformation in the NHS.

These over-arching aims were addressed via a number of key evaluation questions:

- What are the measurable outcomes of the CMS approach?
- What are the perceptions of those involved of the benefits and disbenefits of the approach?
- How has implementation of the CMS approach proceeded?
- How does the CMS approach sit within or alongside other service improvement programmes at local levels?
- What key roles or functions are required within and outside of microsystems in order to achieve maximum impact?
- How can the CMS approach be developed to become an integral component of strategies for building local improvement capability?

4. METHODOLOGY

4.1 Realistic evaluation

The project adopted a 'realistic evaluation' approach. The major proponents of realistic evaluation are Pawson and Tilley, who argue that there is an inadequate understanding of *why* programmes work within evaluation. The equation below demonstrates how outcomes of an evaluation are produced from a realistic evaluation perspective (Pawson & Tilley, 1998).

$$(C) \text{ Context} + (M) \text{ Mechanism} = (O) \text{ Outcome}$$

No individual-level intervention works for everyone, and no institution-level intervention works everywhere. Realistic evaluation seeks to discover what mechanisms work for whom, and within which contexts. Programmes are always introduced into pre-existing social conditions, and so the evaluator needs to investigate the extent to which these conditions enable or disable the intended mechanism of change. 'The task of a realist evaluation is to find ways of identifying, articulating, testing and refining conjectured CMO configurations' (Pawson & Tilley, 1998: 77). The ultimate goal is to identify regularities of context, mechanism and outcome within social programmes. Thus, realistic evaluation aims to open up the 'black box' of evaluation and examine why it is that programmes have particular effects, and how these may be transferred to other contexts.

The evaluation included both summative and formative aspects. In order to meet the objectives set out above the evaluation adopted a case study approach, for the following reasons:

- It is important to recognise local contexts and the contingency of service improvement initiatives. A case study approach seeks to locate evaluation findings within the immediate context from which these emerge and identifies key factors which determine the transferability of developments to other contexts.
- A case study approach also enables the combining and triangulating of data collection methods to achieve a richer and more refined picture.

4.2 Case Study Methods

In accordance with the commissioner's specification there was an initial period in which discussions took place between the HSMC team, the commissioning body and other interested parties with the aim of finalising the process and scope of the evaluation. This helped the HSMC team to identify the types of summative data which might be available and to establish the scope for reporting on quantitative outcomes. Following this, the HSMC team established criteria for purposively selecting a sample of case study organisations. These were chosen to include:

- Teams of different size – ranging from relatively small (e.g. six members) to those with upwards of 25 members;
- Coverage of primary, secondary and intermediate care, and;
- Where possible, a mixture of sites reporting positive and less positive experiences of implementing CMS.

Within four of the six case studies, face-to-face semi-structured interviews were conducted with key figures in the CMS projects including practitioners, managers and other staff. Interviews were tape-recorded in all instances. In the two remaining case studies, tape-recorded group discussions were preferred to interviews at the request of respondents. There were six case studies in total and an average of four respondents within each case study. Interviews and group discussion were used to explore the perceptions and opinions of those involved, enabling multiple perspectives to be brought to bear on the topic of CMS.

The evaluation also intended to include outcome data made available by participating case study sites for analysis, and to identify trends and themes from across the case study sites. Similar HSMC evaluations have used outcome data collected by case study sites to explore issues of efficiency, quality of service delivery and long term sustainability (see for example McLeod *et al.*, 2006).

5. FINDINGS

5.1 CMS case study sites and programmes

Case studies included within the evaluation were drawn from three service improvement programmes. Three of the sites were drawn from the (then) North and East Yorkshire and Northern Lincolnshire Strategic Health Authority CMS Programme which recruited three waves of CMS implementers between October 2004 and January 2005. Each of these was offered the opportunity to participate in a six-month programme of six-weekly meetings which had the objectives of understanding the CMS approach and sharing learning. Specific coaching support was also offered as part of the programme and senior management support for implementation was a precondition of recruitment. Two case study teams had become involved as part of the North and East Yorkshire and Northern Lincolnshire Cardiac Network CMS programme which was structured in a similar way with equivalent support and which 'went live' in July 2005. The sixth case study team adopted CMS as a means for delivering the Royal College of Nurses/Department of Health programme for Improving Cleanliness in Hospitals which began in April 2005. As such this team had comparatively less specialist CMS support and expertise made available to it.

Key features of each case study site are described below. More detail is contained in the appended site reports.

Team:	<i>West Hull Primary Care Trust: Sexual & Reproductive Health care Network. Genito-Urinary clinic</i>
Size of microsystem:	Approx 25.
Involvement in CMS:	North and East Yorkshire and Northern Lincolnshire Strategic Health Authority's CMS programme - joined between October 2004 and January 2005.
Assessment tools:	Staff survey, incremental assessment of patient satisfaction, analysis of processes.
Activities:	Regular meetings, changes to roles and processes.
Outcomes:	Shift towards nurse-led services, training and expanded roles for nurses, changed role for clinicians, discontinuation of inefficient services, introduction of nurses station and patient self-triage, staff reward schemes.

Current status of CMS:	Integrated into team working, some concerns at resurfacing of previous cultures and practices, plans for further development using CMS.
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Team:	<i>Occupational Therapy, Hambleton & Richmondshire PCT</i>
Size of microsystem:	Approx 20.
Involvement in CMS:	North and East Yorkshire and Northern Lincolnshire Strategic Health Authority's CMS programme - joined between October 2004 and January 2005.
Assessment tools:	Staff survey.
Activities:	Team building and six weekly CMS meetings.
Outcomes:	Improved communication and team morale.
Current status of CMS:	Some loss of momentum due to capacity pressures and external changes, reliance on key individuals to sustain.

Team:	<i>Beverly Integrated Community Mental Health Team</i>
Size of microsystem:	Approx 30 members.
Involvement in CMS:	North and East Yorkshire and Northern Lincolnshire Strategic Health Authority's CMS programme - joined between October 2004 and January 2005.
Assessment tools:	Survey of staff, process-mapping.
Activities:	Monthly meetings, team-building, changes to systems and processes.
Outcomes:	Changes to assessment and duty systems, tackling referral patterns, designating central staff meeting place, Implementation of peer supervision.
Current status of CMS:	Discontinued.

Team:	<i>North Lincolnshire & Goole Hospitals NHS Trust: Cardiac Rehabilitation (CR) Team</i>
Size of microsystem:	6 members.
Involvement in CMS:	North and East Yorkshire and Northern Lincolnshire Cardiac Network CMS Programme – joined July 2005.
Assessment tools:	Staff survey, process-mapping.
Activities:	Regular meetings and adjustments to working practices.

Outcomes:	Improved communication and team morale, addition of annual 'de-cluttering' of offices, introduction of 'discovery interviews' and use of staff notice-board.
Current status of CMS:	Integrated into team-working, expected to continue regardless of personnel changes.

Teams:	<i>Surgical and medical wards, Epsom and St Helier Hospitals</i>
Size of microsystem:	Approx 12.
Involvement in CMS:	Six month pilot as part of Royal College of Nursing clinical leadership team programme using CMS to deliver cleaner hospitals – joined between April and September 2005.
Assessment tools:	Patients satisfaction questionnaire and process mapping.
Activities:	Regular CMS meetings, team building, changes to working practices.
Outcomes:	Production of a bed hanger, introduction of 'ideas board'.
Current status of CMS:	Some changes are now integrated into cultures of practice, future progression threatened by lack of resources and support.

Team:	<i>North Yorkshire Smoking Cessation Service</i>
Size of microsystem:	Approx 12.
Involvement in CMS:	North and East Yorkshire and Northern Lincolnshire Cardiac Network CMS Programme – joined July 2005.
Assessment tools:	Staff survey, patient survey, analysis of patterns of referral.
Activities:	Meetings, changes to processes and practices, virtual online notice-board.
Outcomes:	Improvements to morale and empowerment of team members.
Current status of CMS:	Ongoing.

5.2 Implementation of CMS across sample sites

The clinical microsystem approach to improvement begins with an assessment phase which takes in: the views, attitudes and opinions of all members of the microsystem; the characteristics and needs of the patient population served; the internal processes that underpin their current way of working, and; their patterns of performance and activity (NHS III, 2006).

Of the six case studies:

- Five had attended workshops introducing CMS and enabling experiences to be shared with other CMS adopters;
- All six had established protected time to meet as a microsystem to identify areas for change and improvement;
- Four reported having conducted a formal survey of microsystem members (although not always using the CMS survey instrument);
- Two had formally elicited the views and opinions of patients and service users and a further site had done this on a more ad hoc, opportunist basis;
- Five had taken time to map systems, processes and roles (although again not always using existing CMS tools), and;
- Only one of the six sites was able to make data available data relating to patterns in performance and/or activity.

5.2.1 'People'

The most common area of focus was on members of the microsystem. As a result, staff well-being and communication between team members became the focus of much early work. Most commonly this involved:

- Setting up communication mechanisms such as regular meetings and notice-boards;
- Implementing reward schemes such as 'employee of the month' and explicit acknowledgement of areas of strength and good practice, and;
- Active involvement of those occupational groups traditionally less involved with service improvement such as administrative support and lower grade nurses.

5.2.2 'Process'

The next most common activity involved adjustments to routine systems and practices. These included:

- Withdrawal of unnecessary or inefficient stages in the patient pathway;
- Addition of stages in the patient pathway – for example in assessment and triage;
- Realignment of staff workload in light of information about referral rates, and;
- Training and expansion of roles of team members.

5.2.3 ‘Patients’

Many of the sites indicated adoption of an ordinal approach to CMS implementation. Typically this involved focussing on patient experience *after* staff surveys and process mapping had been conducted. Three sites reported collecting some patient data or having elicited patient views. A ‘*How was your stay?*’ questionnaire was given to inpatients at the Epsom & St Helier sites. This project demonstrated patient involvement at a variety of stages and respondents cited this as a significant factor in progress achieved. The smoking cessation clinic conducted patient questionnaires assessing the service and this resulted in changes to the level of supporting information included when making appointments. The team also planned to conduct qualitative research in order to better understand what motivates patients to use the service, and any changes that they might make to prove more accessible. The other three case study sites indicated that the patient population served was an intended area of future focus.

5.2.4 ‘Patterns’ – collection of performance and other data

The evaluation indicated a paucity of routine data collection relating to service activity and outcomes, both prior to and during the period of CMS implementation. Representatives from each of the six pilot sites were requested to supply data on:

- Effects on productivity, including for example patient outcomes or raised activity levels;
- Effects on efficiency, for example including impact on patient journey times and/or resources, and;
- Information on consumer and stakeholder satisfaction, including staff and patient satisfaction surveys.

One site, North Yorkshire, had recorded outcome data on success rates of the smoking cessation programme. These results are included in the appended site report.

Overall, this response appeared to reflect the low priority placed on collection of such data. A number of respondents indicated that, to date, the focus of CMS implementation had been primarily on addressing morale and relationships within and between the staff group comprising the microsystem. Recording of performance data and impact on service outcomes had not been central to this process. In some instances this reflected the theme of local determination and local leadership characteristic of the CMS approach. Sites had been free to set priorities and lead implementation internally and in most instances this had not included routine collection of outcome or impact data. This is linked to the popularity of CMS as an 'organic' approach, distinct from top-down improvement programmes with onerous and heavily prescribed reporting regimes. However, it also poses challenges for the evaluation exercise. Clearly, there are consequent limits to the summary claims that can be made for CMS as an instrument of service improvement and as a means of delivering either productivity or effectiveness gains. As a result of these gaps in data, the evaluation is drawn largely from the expressed perceptions of those involved and is therefore not able to determine which teams might be considered high performing.

The majority of case study sites had little specialist data collection and data manipulation capacity. This was recognised as a weakness by some respondents who felt that this limited understanding of their microsystem and its performance. This brought an added disadvantage when attempting to demonstrate the benefits of work undertaken and to lever further change or resources where the need for these was identified. However, the majority of respondents were happy for the benefits of CMS to remain relatively 'unrecorded' as long as these were still felt within the microsystem itself.

A further reason for the poor response in terms of outcome data may be reluctance to disclose equivocal or unflattering information. This observation is speculative and based on prior experience of external evaluation rather than evidence derived here. However, data was not forthcoming from at least two sites who had indicated in interviews that some recording of activity had been undertaken.

5.2.5 Summary

The overall emphasis on team working and process mapping was reflected in definitions of CMS offered by the evaluation participants:

'A group of people that work together with common goals and aims who want to improve things within that team'

'team-working and how you relate to people that you deal with day-to-day and how you can help or hinder that working'

'The idea that you are an important part of a team and you can make a difference'

'Working within my immediate team looking at how we do things, how we work as a team'

'looking at yourself and your place in a broader system'

'It's another name for what goes on around you. It's about fundamentals rather than the big clinical stuff'

'It's a group of people working together to improve things'

5.3 Perceived benefits of CMS

Interviewees from each of the case study sites were asked to identify any benefits and disbenefits which they considered to be a direct result of adopting CMS. This was initially introduced as an open-ended question and was followed, where necessary, with specific prompts relating to staff, patients and services provided. In order of prevalence, benefits cited were:

- Greater communication within the microsystem;
- Improvements to morale within the team;
- Empowerment and involvement of individual team members in service improvement;
- Greater awareness of the service's functions and individual roles in delivering these;
- A shift in culture towards a more active approach to individual and collective improvement, and;

- A greater capacity to absorb and manage externally imposed change and upheaval.

5.3.1 Communication and morale

Each of the six teams had been afforded varying amounts of protected time to undertake CMS implementation. Although this had been used in differing ways it was unanimously seen as having led to improved communication between members of the microsystems. There was considerable freedom and variation in how this element of the process was conducted and this seemed to allay fears that CMS implementation would be highly demanding and daunting. Overall, CMS was credited with formalising the need for listening and sharing with all team members encouraged to attend and take an active role. Many respondents reported an increase in openness and improvements in the flow of information. In some cases this was supplemented with mechanisms such as dedicated CMS notice-boards.

As indicated, the six case study teams had adopted CMS for varying reasons including as an attempt to 'turn around' a service that was seen to be failing and/or as suffering from low team morale. In these instances CMS was widely seen as having brought about significant improvements. Respondents from other sites identified more modest increases in morale, reflecting a less extreme starting position. There were also clear differences *within* teams, particularly between respondents who gained personally from the experience of CMS and those who reported more modest personal benefit. However, there was virtual unanimity that overall, each team had developed greater cohesiveness, mutual support and team building. A key factor in improving morale was the weight afforded by CMS to identifying areas of strength as well as to areas of weakness.

5.3.2 Empowerment and involvement

A related benefit cited consistently by respondents derived from the systematic involvement of all members of the microsystem in the diagnostic and development phases. Individuals referred to having a 'voice' and a 'platform' enabling them to take an active role in change and improvement. This was key to achieving a levelling out of authority and hierarchy and conferring of developmental roles on those who had

previously considered this as an exclusively management skill and responsibility. This benefit was again more pronounced in services where individuals had previously felt marginalised but appeared to be common, in some measure, across case studies. Respondents pointed to specific instances of staff leading on aspects of change and development. However, the main effect of this empowerment was in creating a receptiveness to, and in some cases ownership of, the CMS process. The process of arriving at this point of consensus and involvement was uneven within and across case studies, reflecting contextual factors such as: size of teams, extent of divisions across microsystem members, and levels of initial resistance and dissent. In some instances these barriers were not fully overcome but in all cases overall progress was claimed.

5.3.3 Self awareness

CMS was seen as having engendered scrutiny of current roles, practices and systems which in turn had enhanced clarity and understanding for those involved. The time taken to 'take a step back' was seen as a welcome opportunity to analyse previously unexamined practices and routines. This was seen as a prerequisite for the more tangible innovations and improvements which some of the sites subsequently initiated. Although respondents cited previous involvement in 'process mapping' there was a general perception that CMS had afforded a more thorough and extensive review and that this had benefited from accompanying 'people' focussed activities.

5.3.4 Managing change and developing an improvement culture

The relationship between CMS and other areas of change and transition was complex and appeared to vary between sites. Some sites had adopted CMS as a specific mechanism for progressing pre-identified programmes of change and/or improvement including, for example, health and social care service integration. Others found that increased responsiveness and robustness to change – for example office relocation - was a positive by-product of CMS. This was most often seen as an effect of CMS principles and processes on the culture of teams. In particular this involved the fostering of an openness to innovation and stronger working practices enabling disruptive external changes to be absorbed more effectively.

By contrast, some case studies within the sample had suspended the CMS process and respondents attributed this to an environment of upheaval and turmoil. In one case this appeared to constitute a permanent discontinuation, whereas other site respondents indicated that whilst active progress had ceased, underlying CMS principles remained in place and would continue to do so through periods of 'dormancy'.

5.3.5 Patient benefits

As indicated, improvement activities had focussed more on staff than patients and service-users. Most respondents stopped short of directly citing patient benefit as an outcome of CMS although many felt that this could be inferred from improvements in the cohesion and organisation of services. Respondents from a minority of sites suggested that changes adopted through CMS had resulted in a more 'patient-centred' service (for example sites see Epsom & St Helier, and the Beverly Integrated Mental Health Team). Others felt that improvements to staff working had laid a foundation for intended future developments focussing explicitly on the patient experience.

5.4 Perceived disbenefits of CMS

There were far fewer negative outcomes attributed to CMS. However, an issue mentioned by a number of interviewees concerned the diagnostic phase and the dangers of identifying problems that prove to be either irresolvable within the microsystem or contrary to broader organisational policy or directions of travel. A single respondent felt that the process of self-analysis occasionally threw up perceived or actual limitations that could negatively affect the confidence of individuals.

Interviewees also weighed the perceived benefits of CMS against the level of time and capacity it took up and in a minority of instances considered the latter to outweigh the former. Implementers operating in an acute setting found it especially difficult to protect time against competing imperatives. However, respondents acknowledged that CMS was otherwise relatively resource-light in comparison to other change management and improvement initiatives they had experienced.

5.5 Key features of CMS implementation

Respondents were asked to identify the specific features of CMS implementation which had brought about these benefits. In no particular order of prevalence, commonly cited factors are detailed below.

5.5.1 'Small steps'

The emphasis on a gradual process and the absence of ambitious aims and expectations made CMS appear less daunting than many had expected. Team members felt reassured that wholesale change was not expected and this was confirmed when (in most cases) early diagnostic exercises revealed successes as well as limitations in practice and performance. A modest approach which eschewed the tackling of unrealistic obstacles – at least in the early stages of implementation – made it possible for those leading the process internally to retain a higher degree of co-operation from reluctant or sceptical team members. The subsequent achievement of 'quick wins' – adjustments on a relatively minor scale – consolidated early enthusiasm and in some cases led to increased ambition within microsystems. The 'small steps' approach was therefore seen as important in developing momentum and garnering support for CMS.

5.5.2 Flexibility

The flexibility afforded the case study sites by the modest demands and expectations of the local CMS programme contributed to the belief that progress would be pursued at a manageable rate and also engendered a sense of ownership and freedom from external monitoring and sanction. As illustrated by the varying ways in which the case study teams applied the CMS principles, this flexibility was exercised in both the speed and focus of activity. However, the majority of respondents in sites considered some external structure to be necessary. It was felt that outside expertise, the opportunity to learn across organisations, and the legitimacy gained through involvement in a broader CMS programme, were important counter-balances to local autonomy.

5.5.3 CMS resources

By contrast, a number of features of CMS appeared to have either a negligible or a negative impact on implementation. A number of respondents considered the term 'clinical microsystems' itself to be misleading and even off-putting. Early misperceptions stemmed from its apparent association with technical or IT-based interventions. Many interviewees had dropped the 'clinical' from CMS in their everyday usage and some advocated a re-branding to reflect the more palatable realities of the CMS approach.

There was also a marked under-usage of pre-existing CMS tools – the adapted 'green book' – to the extent that the majority of interviewees were unaware of the existence of these. Some expressed retrospective regret at this, arguing that greater awareness might have led to greater usage. Others appeared content to adopt CMS principles without making use of specific tools. A smaller number of respondents preferred not to buy in to the framework or language of the '5 Ps'. Reasons for this were not always clear but seemed to stem from a sceptical response to 'jargon', 'buzzwords' and 'catchphrases'.

5.6 Implementation enablers and barriers

Respondents were asked to identify factors that had either helped or hindered implementation. Views expressed are summarised below. The two factors most frequently cited were: a) leadership from individual members of the team, and b) involvement of all team members.

5.6.1 Leadership

The existence of a small group of early CMS converts and advocates was common across all six sites. In most cases these became, to varying degrees, leaders of the subsequent implementation process. Leadership in some cases involved little more than providing a structure and organisation for the CMS work to be developed – including liaising with the broader programme and keeping records of team exercises and decisions. In other teams there was a requirement for a more active, interventionist leadership style, including at times the adoption of a more directive approach to conflict

resolution and to establishing processes for making difficult decisions. In general, leadership styles tended to reflect the aspirations and circumstances of the microsystems. However, respondents from one case study site indicated that a deficit in 'strategic' leadership had hindered progress.

Some leaders emerged from within teams as their own interest in CMS increased. Others – for example heads of services – assumed a leadership role reflecting their seniority. In general the emergence of these advocates and leaders was received positively by other microsystem members and helped to generate support. In a small number of instances, however, people expressed concern that those leading the process were not best placed or fully equipped to do so. Others expressed the view that ongoing progress was heavily dependent on these individuals and therefore might be threatened by changes in personnel.

5.6.2 Involvement

The importance of leadership was matched by the significance attached to achieving comprehensive involvement and consensus. Clearly, the explicit extension of improvement activities to all members of the service is a key element of the microsystems credo, and one which was understood by each of the case study teams. However, the extent to which this unanimity and involvement was actually achieved varied. The two largest teams reported highest levels of dissent or non-cooperation which posed serious difficulties in both cases. Within these, and other teams experiencing lower level resistance, the strategy for overcoming this barrier involved a mixture of compulsion and 'diffusion of innovation' (Rogers, 1995). Elements of compulsion included insisting on attendance at CMS meetings or insisting that all staff abide by decisions taken in their absence. The second strategy centred around building momentum amongst more receptive team members in the hope that others would become involved as benefits became clearer. This was relatively successful although some sites had not been able to generate full involvement from the microsystem members.

5.6.3 Levels of support within the host organisation

Each of the six sites had been granted protected time to implement CMS. This was crucial in the diagnostic phase although some teams had subsequently reduced the frequency of CMS meetings. Respondents in the majority of teams indicated that a greater level of support – in the form of strategic direction and commitment of resources – would have helped in achieving change and improvement. Explanations for the lack of active support centred around the relatively low profile of the CMS programme and projects and a subsequent lack of external appreciation of what teams were undertaking. It was further claimed by some interviewees that intended changes identified as part of the CMS process were unlikely to receive the necessary support of the broader organisation in these circumstances.

5.6.4 Support from the broader CMS programme

The case study teams reported varying degrees and types of input from the broader CMS programmes. Two of the three programmes in question had organised workshops for all implementer teams to develop their understanding of CMS and to share experiences and learning. In general these were seen as valuable and as helping to inject enthusiasm into those attending. Teams attempted to spread attendance at these workshops across the microsystem members. A small number of respondents felt that benefits accrued from attendance did not warrant the time spent away from routine work.

Further support was available in two of the three programmes in the form of an identified 'CMS coach' whose responsibility was to provide specialist support and facilitation where necessary. Perspectives on this further input ranged from those who had found it unwelcome and therefore proceeded without further programme involvement, to those who had valued outside involvement and felt that more such support would have been beneficial. The CMS coach was seen by these latter respondents as providing important expertise – for example in advising on processes and interpreting data – and contributing to the general legitimacy and profile of the work undertaken. For example, a number of interviewees felt that requests from external parties were less likely to be declined or dismissed by sceptical members of the microsystem. Support from the broader programmes was thus both a key enabler of, and also a potential barrier to, implementation.

5.6.5 Stable environment

Other elements of the broader environment were felt to have had an impact on the CMS implementation process. Generally, a context of relative stability was seen as conducive to achieving change, even amongst respondents whose teams had adopted CMS specifically as a means of managing transition. For example, some interviewees talked about expending finite 'change time' and limited energy for attending meetings. Uncertainty about broader directions of travel could also halt progress in adopting CMS albeit temporarily in most cases. Therefore it appeared that although CMS was useful in helping to manage a context of change there was a threshold beyond which CMS was overtaken or superseded by other events.

5.7 Succession and sustainability

Many respondents expressed doubts when asked if they thought the CMS approach would continue to be used within their team. This was perhaps surprising when considered in the light of the overwhelmingly positive assessment of its value as a means of improving services. Although respondents from two sites were emphatic in predicting that CMS would continue to be used, others expressed doubts due to:

- Reliance on the leadership and efforts of a small number of individuals. For example, in one site a key advocate had recently moved and this was seen as posing a threat to continuation;
- The absence of resources to support the process;
- The absence of a national profile to ensure host organisations facilitate and support the CMS process, and;
- The build up of conflicting priorities and pressures.

6. DISCUSSION

6.1 CMS, contexts and outcomes

The evaluation drew data from six case studies and as such can offer only a partial assessment of the clinical microsystems approach within England. However, the study raises a number of themes worthy of further exploration and attention.

Using Pawson and Tilley's (1998) framework, it was clear that the *context* of involvement in CMS varied across the case study teams. The sample included acute, community and partnership sector agencies of various sizes. Some of these had recently undergone significant re-structuring or were perceived to be failing and saw CMS as a means of tackling these challenges. In some instances CMS was therefore clearly being used as a tool to bring about broad, pre-identified shifts in service orientation and organisation. Other reasons for adoption of CMS included the desire to improve staff co-operation and a general aspiration towards more effective working. Each of the organisations had received senior approval from their organisations and undertook CMS as part of a broader programme operating in their areas.

There was also variation in the *mechanisms* adopted by the teams. The CMS approach is commonly subdivided into the four 'P's - 'Patients, People, Patterns, Processes' (augmented more recently by the fifth 'P' – Purpose (Gill & Gray, 2006)). Sites revealed a preference for focussing on 'people' and 'processes' over 'patient' and 'purposes', although a number of exceptions were evident. The focus on 'people' can be seen as influenced by a number of aspects of context:

- This was a powerful strategy for garnering support from potentially sceptical team members. The emphasis on staff well-being distinguished CMS from previous, externally imposed improvement programmes. This might therefore be seen as an issue of sequencing – with more patient and system based initiatives to be developed at a later stage;
- In some cases a focus on people reflected the avowed aims of those introducing CMS: for example to assist with integration of health and social care teams, to improve communication and co-operation within the team, and;

- The relative lack of resources available to teams – beyond holding regular meetings – may have contributed to a focus on the more manageable aims of improving staff well being and communication. Technical innovations and the leveraging of extra funding were not facilitated by the various CMS programme arrangements.

Many of the teams analysed and adjusted processes as a result of adopting CMS. These achievements were most evident in teams that engaged CMS with specific improvement objectives in mind – for example shifting from a clinical to a nurse-led service, and improving hospital cleanliness - and many of the changes to systems and processes were broadly consistent with these overarching aims. By contrast, teams who did not start out with an identified change agenda were more likely to have concentrated on ‘people’ issues and reported fairly modest system changes.

There was some reference to teams analysing ‘patterns’ – most frequently in referrals to the service. This was again most evident where CMS had initially been adopted as part of an explicit concern to improve performance. Overall, however the teams indicated a far greater emphasis on process issues than on service outcomes. This was illustrated by the apparent weakness of data and information, reflecting findings from CMS evaluations conducted elsewhere (Nelson et al, 2002).

It is not clear why the majority of teams had not explicitly included patients given the focus within CMS on inclusion of service users within the microsystem. The teams that had involved patients reported subsequent improvements in their approach to service delivery. The majority appeared not to have incorporated patients into the diagnostic elements of their work although many identified this as a weakness which they intended to address.

The outcomes reported by respondents clearly reflected the ways in which the *mechanism* of CMS had been interpreted and implemented. The overwhelming focus on staff and processes led to the primary outcomes of:

- Improved communication;

- Team building;
- Improvements to systems and working practices, and;
- Responsiveness and robustness to upheaval and transition.

The focus on 'people' and 'process' was reflected in the relative absence of outcomes for patients and the lack of measurable impact on quality, safety, productivity or efficiency. This may be partly explained by the relationship between teams and the broader CMS programmes. Some sites had not fully utilised available resources (notably the CMS coaches and the 'green book') and this may have contributed to the lack of data collection and patient involvement. Despite this, there was a widespread feeling amongst respondents that CMS had made teams more responsive to patients and to changes in the external environment.

A common theme across sites was the inhibiting effects of the broader organisational context. These barriers often only came to light when teams attempted to implement areas of change and improvement and were faced with restrictions and/or resource constraints. The evaluation identified a strong argument for senior level support and buy in.

The extent to which outcomes would be lasting and the likelihood of a continued application of CMS principles were also felt to be contingent. Respondents warned of the dangers of drifting away from the culture of openness and responsiveness developed and returning to previous, less productive patterns of behaviour. Important factors here include:

- Retaining and nurturing internal leaders and advocates;
- Ongoing reinforcement and renewal of the principles and practices of CMS;
- A receptive and supportive organisational context, and;
- Avoidance of excessive strain and competing priorities – for example as a result of staff shortages.

6.2 CMS and local improvement capability

Based on the testimony of those involved in its implementation, there are clear strengths of CMS as an approach to local service improvement. The evaluation identified a trend of empowerment and a consistent expansion of the pool of 'improvers' taking in those traditionally excluded from formal programmes of change and service innovation. Furthermore, gains were made with minimal additional resources which were seen to be reasonably resistant to challenging circumstances and competing demands. A key finding was that CMS implementers appeared to adopt and embody principles of practice which were conducive to *ongoing* change and improvement. This would appear to imply an underlying shift in culture making future discrete areas of innovation more achievable. The evaluation thus provides support for the claims made regarding the 'integrating' potential of CMS as compared to problem-based approaches to improvement (Golton & Wilcock, 2005). These shifts were not however resistant to unlimited external upheaval and to the effects of countervailing influences from outside of the microsystems in question. Clearly, microsystems are not untouched by the broader organisational and policy context. Some respondents were unable to disentangle and dissociate outcomes of CMS and other initiatives. This became problematic when CMS was conflated with unpopular changes (such as moving to self-managed team governance). This complex relationship between the strong sense of internal ownership of change – heightened by the flexibility afforded by the CMS programmes – and externally derived service redesign, requires further study. In particular the dual use of CMS as a means of, on the one hand, managing change transition, and of, on the other, introducing new areas of improvement identified from within the microsystem, needs to be carefully managed.

The flexibility of CMS offers an implicit recognition that solutions cannot be universally applied or transferred mechanistically across differing contexts (Allen, 2006 unpublished). However, resulting variation in approaches can lead to some potentially concerning gaps. There is a need for economies of expertise and support to ensure that due consideration is given to key priorities such as measurement of outcomes and involvement of patients and service users. The role of the macro-system and of broader CMS programmes is crucial here. The balance between generating expert advice, guidance and setting out overarching expectations of CMS implementers whilst avoiding imposition and interference is difficult to strike.

Given the multiplicity of ways in which CMS may be interpreted, the question is not whether CMS 'works' as an improvement methodology, but instead is more nuanced relating to who it works for, when and how. As outlined in earlier sections of this report, key figures from the NHS III have suggested that in order to deliver on the agenda laid out in *The NHS Plan* a process of continuous improvement needs to be embedded within the NHS engaging nearly 100 per cent of all staff members. Thus, in judging CMS as an improvement methodology we must ask whether it is a useful tool for engaging staff members and sustaining an improvement ethos within these teams. The evaluation suggests that some teams have been more successful in this endeavour than others, therefore we need to look at the how and why of this process.

A key issue seems to concern how the CMS approach is institutionally 'framed'; that is, how the approach is presented to staff members in a way that captures their interest and pushes them to engage and then sustains credibility to remain an ongoing concern within that specific organisational context. At one level, the CMS approach seems to be useful as a sense-making tool for leaders, and lays out what it is the team does and how it fits within the wider context. Therefore, it is not just about the application of a specific approach, but enabling a receptive institutional context so that the approach is appropriate and useful. Within the evaluation, team members seemed more likely to engage with the process where it was represented as an empowering and inclusive tool for improvement. Moreover, continuation will only occur when the approach is perceived as effective by those engaged in the process and there is evidence demonstrating impact. Thus, there is an important role for the measurement of impact, not only within the individual application, but for the future credibility of CMS as an approach within the NHS as a totality.

6.3 CMS and the wider organisational studies context

Although Clinical Microsystems (CMS) are new to the NHS in some respects, many of the fundamental underpinning principles are fairly well established within the literature pertaining to organisational behaviour and change. In a study of performance and productivity within the private sector Quinn (1992) noted the importance of reducing large and complex organisations to key building blocks (named 'smallest replicable unit' or

'minimum replicable unit'), so that staff can respond to the needs of customers and changes within the external environment. This evaluation appears to reaffirm the value of this approach within the context of health care (and to some extent the public sector more generally). Those respondents who advocated use of CMS – and these were distributed amongst each of the six case study sites – identified responsiveness to both service user needs and an ever-changing organisational landscape, as key benefits of the CMS approach. That is, the CMS approach was a useful tool for framing the remit of the team within a complex and shifting institutional context.

The idea that organisational structure has a high degree of salience for performance is fairly well established, with quality theorist W. Edwards Deming (quoted in Seddon, 2004) going as far as to suggest that 95 per cent of the cause of variation in performance is attributable to the system that the work of an organisation is structured around. In other words, failure is due to the way the work is designed and managed - rather than the people executing the tasks. Although much of the literature would disagree with quite this high degree of influence being afforded to structure given the importance that human factors are thought to play in organisational performance; one thing that is stressed is that organisational form should follow the purpose of the organisation (Jas & Skelcher 2005, Mucha 2005, Walshe *et al.* 2004, Dalziel *et al.* 2004) and most of the improvement methodologies widely adopted within health and social care have had a clear focus on process improvement. If applied fully, the principles of CMS should offer a synthesis of structural and people-based solutions. The evaluation was inconclusive as to the lasting impact of the approach on performance as sites were in relatively early phases of implementation and hadn't collected sufficient data.

A consistent theme of the evaluation was the focus within CMS on understanding roles and systems in order that areas of strength and weakness can be identified. This is consistent with studies which note that high-performing organisations have clear and consistent role and responsibility structures. The responsibilities of the core of the organisation and the business units need to be clarified with clear definition of accountabilities. An organisational map which has been communicated and demonstrated to all members of the organisation may prove useful in achieving this aspect and these had been developed in a number of case study teams. Weick (1987) suggests that one of the premises of high-reliability organisations is that employees who

know more about their system should be better able to operate it. Care must be taken so that the flattening of structures and devolution of resources goes hand-in-hand with the clearly devolved responsibilities and accountabilities which holding these entails.

A number of the established concepts underpinning CMS are embodied within the literature relating to New Public Management (NPM). NPM is heavily influenced by the private sector; essentially suggesting the traditional public administration of the past is no longer suitable to the management of public services within today's context. Osborne and Gaebler's (1993) *Reinventing Government* outlines how public services may be transformed along these lines, and their ten key principles are illustrated in Box 1.

Box 1: Osborne and Gaebler's (1993) 10 principles for re-inventing government

1. Catalytic government: steering, not rowing.
2. Community-owned government: empowering rather than serving.
3. Competitive government: injecting competition into service delivery.
4. Mission-driven government: transforming rule-driven organisations.
5. Results-orientated government: funding outcomes, not inputs.
6. Customer-driven government: meeting the needs of the customer, not the bureaucracy.
7. Enterprising government: earning rather than spending.
8. Anticipatory government: prevention rather than cure.
9. Decentralised government: from hierarchy to participation and teamwork.
10. Market-orientated government: leveraging change through the market.

As Box 1 illustrates, NPM drew heavily from the private sector around the introduction of market mechanisms to improve public sector services. Key to this paradigm is the decentralisation of power to the 'smallest replicable units' identified above. This decentralisation is predicated on the basis that it will provide:

- Greater flexibility; organisations can quickly respond to changing circumstances and customer needs;
- Greater efficiency;

- More innovation, and;
- Higher morale, more commitment and greater productivity from the workforce.

By flattening out vertical hierarchies into simpler horizontal networks it is suggested that changes can happen much more quickly as they are no longer required to clear multiple bureaucratic processes. As Peters & Waterman (1982) suggest in their seminal text *In pursuit of excellence*, contrary to the beliefs of public administrations of the past, organisations do not require hierarchies to be held together. Within ‘tight’ cultures the values and mission of a team are clearly understood by all members and take the place of rules and regulations as the glue which keeps employees moving in the same direction. This mission is informed by the needs of the ‘customers’ who use the services, rather than being driven by the requirements of the organisation. In other words, the organisations are clear about their purpose in terms of serving a distinct population and structure their processes appropriately, so that all activities offer value to the end users. Clearly these concepts relate closely to those of ‘purpose’ and ‘patients’ as outlined in the CMS theory. The benefits of such approaches receive some support from the outcomes of the evaluation. Respondents indicated a preference for more democratic and consensual approaches over externally derived initiatives with imposed targets and expectations. However, the focus on customers – patients in this setting – was less developed in most cases.

The literature suggests that as bureaucratic hierarchies are flattened out, strategy and policy is not driven in a top-down fashion but from the bottom-up. The team members are closest to the day-to-day issues and problems, as well as the end users and, as such, are the most appropriate sources of creativity in overcoming problems and simplifying processes. Not only can frontline staff often present the best solutions to difficulties, but allowing all team members to take part in such discussions enables a process of full-engagement and empowerment for all the team. Much of the high-performance literature stresses the fact that employees are the value added within an organisation, and that the ability to engage staff members and get optimal performance from them will largely determine the success of the organisation (Applebaum *et al.* 2000, Applebaum & Berg 2001). This was again confirmed by the evaluation but with an important caveat: in a

number of cases respondents expressed frustration at the restrictions of broader organisational and health sector policy, and their inability to implement changes where this broader context was perceived to be unsupportive.

The recent emergence of the field of Positive Organisational Scholarship highlights the importance of harnessing the positive aspects of human behaviour – rather than focusing on the negative - as much organisational scholarship has tended to do (Cameron & Caza, 2004). Seligman is generally credited as being one of the first advocates of this movement of positive psychology suggesting that getting the best out of individuals is about much more than trying to work out how to fix problems with them. *'It is about identifying and nurturing their strongest qualities, what they own and are best at, and helping them find niches in which they can best live out these strengths'* (Seligman & Csikszentmihalyi, 2000: 6). Staw (1986) suggests that there is a relationship between positive feelings of employees and their performance. It has also been observed that high performing teams have a higher ratio of positive to negative communications (Losada & Heaphy, 2004). This field is still in a relatively young stage but commentators highlight that in today's turbulent economic and socio-political climate, taking a proactive and positive approach to organisational studies would be a positive development (Luthans, 2002). This was a key theme of the evaluation and one which ran through all of the positive developments reported in case study organisations.

The organisational studies literature contains a number of so-called high-performance work practices, some of which are illustrated in Box 2. Researchers like Ashton and Sung (2002) suggest that adopting these practices in a systematic manner will improve performance, although other commentators have disputed various aspects that have not demonstrated clear empirical effects.

Box 2: High-performance work practices from Guest (2000)

1. Realistic job previews
2. Psychometric tests for selection
3. Well developed induction training
4. Provision of extensive training for experienced employees

5. Regular appraisals
6. Regular feedback on performance from many sources
7. Individual-performance related pay
8. Profit-related bonuses
9. Flexible job descriptions
10. Multi-skilling
11. Presence of work improvement teams
12. Presence of problem-solving groups
13. Information provided on the firm's business plan
14. Information provided on the firm's performance targets
15. No compulsory redundancies
16. Avoidance of voluntary redundancies
17. Commitment to single status
18. Harmonized holiday entitlement

In addition there are also a number of high performance management practices in the literature, examples of these include:

- Flexible work organisation;
- Intensive training;
- Use of self-managed production teams;
- Involvement of production workers in solving production and quality control problems;
- Quality circles;
- Total quality management (TQM);
- Job rotation.

Many of these practices resemble those pioneered by large Japanese enterprises in the 1980s and 1990s, most commonly the automobile and electronics industry, but also other industries such as machine tools (Doeringer *et al.*, 2003). Taken together, these high performance work and management practices are characterised by a common desire to raise employee skills, motivation and empowerment (Applebaum & Berg, 2001). They are typically designed to provide greater participation in decision-making, the opportunity

to learn new skills and the financial incentive to offer greater discretionary effort in the service of the employer's goals (White *et al.*, 2003) – in essence a number of the aims which CMS share with the service improvement aims of the 5 Ps (Godfrey *et al.*, 2003). The constraints of this evaluation – which was essentially exploratory in its scope – make definitive pronouncement difficult. However, a number of benefits cited by respondents such as the opening up of decision-making to previously 'voiceless' members of teams, and the experience of 'upskilling' and empowerment, suggest that CMS may indeed offer some of these broader benefits.

7. CONCLUSIONS

Overall, the evaluation supports many of the claims made for clinical microsystems In relation to the flattening of hierarchies and motivating of a range of staff groups to become involved in service improvement activity. The evaluation supports the claim that democratic, consensual approaches can be better received than externally derived initiatives with imposed targets. The emphasis on identifying and nurturing strengths – of both teams and individuals – reinforced these positive aspects.

The case study sites demonstrated higher staff morale, empowerment, commitment and clarity of purpose. To a lesser extent the evaluation also indicated an enhanced predisposition towards improvement and innovation and a seemingly embedded sense of improvement as an ongoing (if essentially episodic) process. However, some of the strong sense of ownership and flexible adaptation came at the expense of patient involvement and process/outcomes monitoring. Future programmes will need to address these components if the broader legitimacy of the approach is to be cemented and enhanced. In particular, the importance of strong data collection in achieving 'high performing' status is emphasized.

8. RECOMMENDATIONS

8.1 Recommendations for programme leaders (preferably at national level)

- Establish minimum commitment from those teams recruited to undertake CMS implementation in order to ensure key elements of induction and ongoing contact are in place.
- Ensure a thorough understanding of the CMS concept is imparted during induction. Emphasise the importance of establishing a rationale for adoption of the CMS approach.
- Reconsider the name 'clinical microsystems' and revisit the CMS tools in the light of their relatively sparse use by the case study sites. This may be an issue of unfamiliarity or the tools being difficult to adapt to an NHS context. Programme leaders could develop and hold an alternative central 'resource kit' for CMS implementers.
- Help to cultivate leaders and champions from within sites and provide support for those experiencing difficulties in facilitating CMS adoption.
- Facilitate access to a budget to fund one-off applications for resources to further improvement work of microsystems.
- Train and allocate CMS 'experts', 'coaches' and/or improvement workers to provide ongoing and systematic support to implementer sites. A minimum involvement should be a precondition of recruitment to the programme.
- Develop a centrally held evidence base for CMS within health care (and the wider public sector).
- Assist in framing CMS so that institutional support is provided to implementer teams. This will involve profile raising and dissemination.
- Carry out longer term research into the measurable impact of CMS on activity and patient/service user outcomes.

8.2 Recommendations at microsystem level

- Identify internal champions and advocates at an early stage of the implementation process.

- As much as possible, achieve democratic and unanimous commitment from within the team involved to support implementation of CMS.
- Put patients at the centre of the implementation process throughout diagnostic and development phases.
- Assist in the collection of qualitative and quantitative data to demonstrate impact of developments.

8.3 Recommendations at organisational level

- Provide senior level understanding and support to ensure successful adoption of CMS and to enable leveraging of resources to implement improvements. This goes beyond provision of initial 'time-out' and includes supporting continuation of improvements and where appropriate encouraging other teams to adopt CMS as well as embracing the 'culture' of CMS more generally.
- Map linkages between microsystems at a meso level and identifying how these feed into and are effected by broader organisational strategy and policies
- Link developments emerging from CMS to other service improvements and innovations ongoing within the organisation. Help to create a relatively stable environment throughout the early stages of CMS implementation.
- Assist and facilitate data collection and analysis where necessary.
- Link with internal CMS leaders and with programme representatives as necessary.

9. REFERENCES

- Applebaum E., Bailey T., Berg P., & Kalleberg A.L. (2000) *Manufacturing advantage: why high-performance work systems pay off*. Cornell University Press, Ithaca.
- Applebaum E. & Berg P. (2001) High-performance work systems and labor market structures. In I.Berg and A.L.Kalleberg (Eds) *Sourcebook of Labor markets*. Kluwer Academic / Plenum Publishers, New York.
- Ashton D.N. & Sung J. (2002) *Supporting workplace learning for high performance working*. International Labour Office, Geneva.
- Ball,S., Mudd,J., Oxley,M., & Pinnock,M. (2004) Make outcomes your big idea: using outcomes to refocus social care practice and information. *Journal of Integrated Care* **12**, 13-19.
- Bate P., Bevan H., & Robert G. (2004a) Towards a million change agents. A review of the social movements literature: implications for large scale change in the NHS. NHS Modernisation Agency, London.
- Bate,P., Robert,G., & Bevan,H. (2004b) The next phase of healthcare improvements: what can we learn from social movements? *Quality Safety Health Care* **13**, 62-66.
- Bevan H. (2004) The importance of theory.
- Cameron,K.A. & Caza,A. (2004) Contributions to the discipline of positive organizational scholarship. *American Behavioral Scientist* **47**, 1-9.
- Dalziel,M., DeVoge,S., & LeMaire,K. (2004) Six principles for designing the accountable organization. *Journal of Organizational Excellence* 59-66.
- Denis J.-L., Lamonthé L., Langley A., & Valette A. (1999) The struggle to redefine boundaries in health care systems. In D.Drock, M.Powell, and C.Hinings (Eds) *Restructuring the professional organisation*. Routledge, London.
- Doeringer,P.B., Lorenz,E., & Terkla,D.G. (2003) The adoption and diffusion of high-performance management: lessons from Japanese multinationals in the West. *Cambridge Journal of Economics* **27**, 265-286.
- Ferlie,E.B. & Shortell,S. (2001) Improving the quality of health care in the United Kingdom and the United States: a framework for change. *Milbank Quarterly* **79**, 281-315.
- Gill, M. & Gray. M. (2006) Using Clinical Microsystems and Mesosystems as Enablers for Service Improvement in Mental Health Services. Humber Mental Health Teaching NHS Trust (unpublished)
- Gladwell M. (2000) *The tipping point: how little things can make a big difference*. Little, Brown and Company, New York.
- Godfrey,M.M., Nelson,E., Wasson,J.H., Mohr,J.J., & Batalden,P.B. (2003) Microsystems in health care: Part 3. Planning patient-centred services. *Joint Commission Journal on Quality Improvement* **29**, 159-170.

Goes J.B., Friedman L., Seifert N., & Buffa B. (2000) Theory, research, and practice on organizational change in health care. In J.Blair and M.Fottler (Eds) *The future of integrated delivery systems*. JAI/Elsevier Press, London.

Golton, I. & Wilcock, P. (2005) The NHS Clinical Microsystems Awareness and Development Programme. Final Report. NHS Modernisation Agency

Greenhalgh T., Robert G., Bate P., Kyriakidou O., & Peacock R. (2004) How to spread good ideas: a systematic review of the literature on diffusion, dissemination and sustainability of innovations in health service delivery and organisation. National Co-ordinating Centre for NHS Service Delivery and Organisation, London.

Guest,D.E. (2000) HR and the bottom line: has the penny dropped? *People Management* 26-31.

Henrich,J. (2001) Cultural transmission and the diffusion of innovations: adoption dynamis indicate that biased cultural transmission is the predominant force in behavioural change. *American Anthropologist* **103**, 992-1013.

Institute of Medicine (2001) Crossing the quality chasm: a new health system for the 21st century. National Academy Press, Washington DC.

Jas,P. & Skelcher,C. (2005) Performance decline and turnaround in public organizations: a theoretical and empirical analysis. *British Academy of Management* **16**, 195-210.

Jones E. (2004) A Matron's Charter: an action plan for cleaner hospitals. NHS Estates, Leeds.

Losada,M. & Heaphy,E. (2004) The Role of Positivity and Connectivity in the Performance of Business Teams: A Nonlinear Dynamics Model. *American Behavioral Scientist* **47**, 740-765.

Luthans,F. (2002) The need for and meaning of positive organizational behaviour. *Journal of Organizational Behavior* **23**, 695-706.

McLeod,H., Dickinson, H., Williams, I., Robinson, S. & Coast, J. (2006) Evaluation of the chronic eye care services programme: final report. Health Services Management Centre University of Birmingham

Mucha,R.T. (2005) Business as performance art: are you getting rave reviews? *Organization Development Journal* **23**, 67-73.

NHSII (2006) Evaluation of Clinical Microsystems. Research and Evaluation Specification Template.

Nelson,E., Batalden,P.B., Huber,T.P., Mohr,J.J., Godfrey,M.M., Headrick,L.A., & Wasson,J.H. (2002) Microsystems in health care: Part 1. Learning from high-performing front-line clinical units. *Journal on Quality Improvement* **28**, 472-493.

Osborne D. & Gaebler T. (1993) *Reinventing government: how the entrepreneurial spirit is transforming the public sector*. Penguin Books, London.

- Pawson, R. & Tilley, N. (1998). *Realistic Evaluation* London, Sage
- Peters T.J. & Waterman R.H. (1982) *In search of excellence: lessons from America's best-run companies*. Harper & Row, New York.
- Pettigrew A., Ferlie E., & McKee L. (1992) *Shaping strategic change*. Sage, London.
- Quinn J. (1992) *Intelligent enterprise: a knowledge and service based paradigm for industry*. The Free Press, New York.
- Rogers E.M. (1995) *Diffusion of innovations*. Free Press, New York.
- Secretary of State for Health (2000) *The NHS plan: A plan for investment, a plan for reform*. HSMO, London.
- Seddon, J. (2004) It's the way we work...not the people. *Personnel Today*.
- Seligman, M. & Csikszentmihalyi, M. (2000) Positive psychology. *American Psychologist* **55**, 5-14.
- Staw, B.M. (1986) Organizational psychology and the pursuit of the happy/productive worker. *California Management Review* **28**, 40-53.
- Walshe, K., Harvey, G., Hyde, P., & Pandit, N. (2004) Organizational failure and turnaround: lessons for public services from the for-profit sector. *Public Money & Management* 201-207.
- Weick, K.E. (1987) Organizational culture as a source of high reliability. *California Management Review* **XXIX**, 112-127.
- White, M., Hill, S., McGovern, P., Mills, C., & Smeaton, D. (2003) 'High-performance' management practices, working hours and work-balance. *British Journal of Industrial Relations* **41**, 175-195.

Appendices: case study reports

WEST HULL PRIMARY CARE TRUST: SEXUAL & REPRODUCTIVE HEALTH CARE NETWORK. GENITO-URINARY CLINIC

Introduction

West Hull PCT (part of Hull PCT as of October 1st 2006) oversees a range of services for sexual health delivered from Conifer House in Hull. This facility was conceived as a 'one-stop shop' for people's sexual health needs and includes: teenage pregnancy services, Chlamydia testing, family planning, community gynaecology, erectile dysfunction, vasectomy clinics, sexual health screening and genitor-urinary medicine. Allied to this, sexual health services are provided from local acute settings (Castle Hill Hospital and Bridlington Hospital). These national services draw particularly from the populations of Hull and East Riding. CMS was introduced into the workings of the Genito-Urinary Medicine team in response to promotion by the North and East Yorkshire and Northern Lincolnshire Strategic Health Authority of its CMS programme which had three 'waves' of sites joining between October 2004 and January 2005. This document summarises the implementation process, reported outcomes and perceptions of those involved in the process of the value of the CMS approach.

The team

The GU service is made up of representatives from across GU medicine and numbers approximately 25 staff. Within this group, three GUM consultants conduct general clinics in conjunction with GU nurses and other personnel. A number of contextual factors led the team to opt for the CMS approach.

They had recently moved into an integrated environment co-located with other sexual health services, having previously delivered a standalone genitor-urinary sexually transmitted infection service in an acute setting. This had led to a greater complexity in linkages between providers – particularly as a result of implementing an integrated reception within the building. Patient pathways were seen as having been significantly slowed down as a result.

The service operated a mixture of appointment and walk-in for potential users with the latter seen on a 'first-come-first-serve' basis. This meant that at times of heightened demand patients were often faced with a long wait and/or being turned away.

These bottlenecks in access were accentuated as all service users were treated by clinical staff, including consultants, regardless of nature or severity of complaint. No triage system was in place to divert milder cases. Therefore, irrespective of need and complexity only, on average, 16 patients were being seen per day and routine services (such as sexual health screening) were being provided by senior clinical staff.

The overall sexual health service – and the GU clinic in particular – had recently been subject to intense media exposure and scrutiny which had focussed on issues such as waiting times and the lack of confidentiality for patients. Thus the service had come to be seen as 'failing' and staff morale was commensurately low. There was a perception that the skills of nursing staff were under-used. Feedback suggested that patients were happy with the service they received but unhappy with waiting times, the lack of confidentiality, and the inaccessibility of the 2nd floor reception area. Respondents in the evaluation indicated that prior attempts had been made to address these flaws but these had amounted to little by way of changed working practices or impact on waiting times.

Data collection

In September 2006 the HSMC evaluation team and the West Hull PCT GU service agreed to conduct a case study of the latter in order to explore and evaluate their use of CMS. The proposed site evaluation included:

- Face-to-face interviews with a sample of those involved, conducted in a site visit on September 11 2006, and;
- Ongoing collection of data relating to the CMS implementation process and its impact on the team. Any such data was collected during the site visit and in ongoing liaison between HSMC and the Sexual Health Team.

At the time of writing, interviewees included a manager involved in the CMS implementation process, a lead GU nurse and a GU consultant. Other potential respondents (such as the modern matron within the team) were not available for interview at the time of the evaluation. Following data collection, all data was collated and analysed by the evaluation team.

The implementation process

Members of the team who were seeking solutions to the difficulties they were experiencing made contact with the local CMS programme. Respondents estimated that the CMS approach was first initiated within the team approximately 18 months prior to the evaluation and the decision was taken to focus on GU – hitherto the most clearly underperforming service within the centre. The GU team received presentations from other teams in the area that had implemented CMS with positive results before seeking senior management approval and submitting a formal application to be part of the 2nd wave of CMS sites, following an earlier national pilot.

A core group of willing and enthusiastic volunteers was established from within the team to take forward the initiative in its early stages. Representation at CMS workshops organised by the SHA was shared amongst team members and included administrators, doctors, nurses and health advisors. Of those interviewed, all had attended at least two of these monthly meetings which enabled sharing of learning and experiences with other teams implementing the CMS approach.

Those within the team leading and managing the process then set up weekly internal meetings. These involved facilitated discussion and clinical pathway mapping through the sexually transmitted diseases service in order to identify bottlenecks in the patient journey and any other areas requiring improvement. External facilitators were engaged to assist in this process which was given priority over other forms of training and development at the time. Notification of meetings was given, including through use of a 'CMS notice-board' which also served as a tool for staff to detail any complaints they had and how they would like to see these addressed. External facilitation from the SHA Service Improvement Team was used to support this process. This diagnostic stage identified issues of access as being of primary importance. In particular, the team sought

to specify roles and how these could be altered in order to speed up the patient's journey through the system. For example, the clinical model hitherto adopted – in which consultants conducted the vast majority of front-line work – was considered cost-ineffective and excessively time-consuming. Once preferred models of working were identified a gradual process of incremental change was introduced which was heavily directed by the core CMS team with the assistance of external facilitation.

Respondents indicated that they had found the implementation process to be less demanding than expected.

'When I first heard about it, it sounded very complex but I have been very surprised and very pleased that it's not complex at all. It's actually about simple, small steps.' (resp 1)

'Eating the elephant: looking at a task which might previously have appeared to be difficult or insurmountable and then breaking it down into component bits, making a pathway and involving a relatively small number of core people and meeting regularly with them, doing small amounts of things along the way until eventually you get there.' (resp 3)

'Easily manageable bite-sized steps that are taken. Nothing too radical, nothing too shocking that upsets too many people.' (resp 2)

The adoption of a piecemeal, incremental approach had the benefit of establishing a sense of progress and control. Early successes were instrumental in bringing other team members on board. Team-building was an integral element to this programme which was made easier by not being 'weighed down by timescales and objectives' (resp 1).

Benefits

CMS was seen by respondents as having fostered significant changes in behaviour.

'Microsystems, in this service, has been phenomenally successful, and I don't know whether it's the environment or the people that have been doing it but I think

it's just totally transformed the attitudes and behaviours of some of the people in it.'
(resp 1)

This was both illustrated and enhanced by the involvement of 'grassroots' workers as well as those more traditionally allied to improvement approaches. This was cited as an advantage over previous schemes although there was a perception that CMS was inappropriately named.

'The fundamental flaw in change management is around people .You're reliant on people adopting new ways of working. Microsystems uses a huge amount of common sense. I don't think the name does it justice. It turns people off. They think 'academic' and it's not.' (resp 1)

As a result of CMS it was felt that nursing staff were sufficiently confident to offers views and objections and to be involved in taking decisions, where necessary without consultant involvement. These benefits were seen as helping the team both instigate change and react to changes imposed on them.

'I think everybody working in the NHS accepts that we're going to be constantly wading through change and you've got to have methods to deal with that and this would be one method' (resp 3)

Outcomes/changes to practice

The general perception from respondents was that the service still required significant change and improvement but that CMS had led to direct benefits in both team morale and the effectiveness of its workings.

'We were a service that I would say was three or four years behind. But I now feel we are in a totally different positions. In terms of PGDs, clinical pathways, nurse-led care we have developed at a considerable pace and achieved amazing results in just two years. I put that down to the commitment of the staff and the use of Microsystems. It's the mechanism that enabled the change to happen.' (resp 1)

Some changes were directly attributable to CMS whereas others were a product of a culture of improvement to which CMS has contributed. A broad shift had been towards more nurse-led services. This had involved greater recruitment and training and allowing nurses, rather than clinical staff, to see asymptomatic patients. The line management structure had been altered so that nurses reported to the modern matron and the balance of consultant activity had been altered to include more training and expert practice and less routine patient contact. Some services, such as the provision of 'telephone results' to patients, were discontinued and new innovations were introduced including a nurses station and patient self-triage. Reward schemes such as the team 'person of the week' scheme were also introduced albeit with a mixed assessment from respondents.

Information on measurable improvements to the service were not forthcoming at the time of writing. Respondents indicated that this was due to:

- The lack of data collection – proposals were in place for recruitment of a performance analyst, and;
- The interim stage currently occupied. The view was expressed that 'building blocks' of an improved service were now in place and the next step was to transform practice.

Interviewees stopped short of arguing that direct benefits had been accrued to patients as a result of CMS although one did indicate a perception that activity levels had increased. At the time of evaluation, however, the service remained over-subscribed – perhaps partly as a result of increased demand following improvements.

Key enablers and barriers

Issues were raised regarding the importance and extent of senior involvement and support in achieving change. For one respondent, the CMS process had identified the need for improvements which could not be actioned from within the team. These included reorganising reception services.

'One of the recommendations was having a dedicated receptionist for this part of the service but I think because of the policy of having an administrative system for

all I think it wasn't acceptable at the time ... I'm not too sure how, having worked through a problem and made some recommendations, those recommendations actually connect with the real movers and shapers for change. There's often a conflict between the evidence base and policy if you like. It's probably best to pick something that's likely to agree with policy change.' (resp 3)

This linked with a further area of potential difficulty which related to the overlap with other microsystems, although some respondents saw this interlinking as positive rather than inhibiting. Overall, all respondents indicated that the changes undertaken were both effected by and had implications for groups outside of the microsystem.

By far the most important barrier experienced by the core team was resistance from within the team which was seen as stemming from perceived threat to established and familiar ways of working. Structural solutions offered by other improvement programmes were seen as inappropriate in this context and the benefits of an empowering and incremental approach were cited in overcoming resistance. CMS had helped to distribute power and influence more evenly within the team and had instituted a process of self-analysis and problem solving.

'It's the best plan that we've had so far. We had tried things before. It's a way of getting round obstructers. You always get people resistant to change and in CMS they are not allowed to be resistant just for the sake of it because there are so many other people behind an idea.' (resp 2)

'The success of microsystems is down to the people who have used it. It's not just the processes, it's how you engage and enable the people.' (resp 1)

Leadership from within and outside the team was seen as important in driving the process and establishing a core team of advocates who were then in turn important in maintaining momentum. Outside input was seen by respondents as being more difficult to contest and/or dismiss. The process was inclusive but offered no veto to those who disengaged.

'We started with a very clear philosophy: if you're not there and you don't want to participate then changes will be proposed and actioned on a democratic basis irrespective of roles and grades. If its right for the service and team we need to get on and do.' (resp 1)

Although, as had been indicated, CMS was seen as useful in helping to manage changes imposed from outside, there was a threshold at which the process became overtaken by other events and pressures. At the time of evaluation a series of 'major issues' had resulted in relative dormancy in the CMS process.

'Other change agendas have used up a lot of time, a lot of change-time, if you like. Also a lot of meetings haven't been happening as well. I think those things have taken over a bit. I think people get a bit of meeting fatigue as well.' (resp 3)

There had been changes in personnel including promotion out of the team for a key member of the management team. In the process, some momentum had been lost.

'The characters are such and the service is so complex it needs very strong, very clear leadership on a daily basis ... Even though the service has progressed, attitudes and behaviours slip back at times.' (resp 1)

Despite this, it was felt that the under-pinning principles of microsystems had become routine and that the CMS toolkit could in future merely be 'picked up' as required. Respondents envisaged using CMS to integrate with the other sexual health microsystems and in the planned development of self-managed teams.

Conclusions

Overall, despite some variation in levels of enthusiasm and involvement the team considered the CMS process to be extremely beneficial and as having:

- Empowered team members;
- Improved morale;
- Improved efficiency of service provision, and;

- Paved the way for further improvements.

CMS was favourably compared to other improvement tools, as it:

- Focussed primarily on people, rather than structures and processes;
- Encouraged tackling of small, achievable steps, and;
- Did not set up unrealistic expectations and pressures.

Despite being unable to demonstrate measurable improvement in productivity or quality, respondents were confident that CMS had enabled them to introduce substantive change and that demonstrable benefits would be shown in future.

Occupational Therapy, Hambleton & Richmondshire PCT

Introduction

Occupation Therapy services for the geographical area of Hambleton and Richmondshire have been overseen by Hamilton & Richmondshire PCT since 2003. The OT team covers the: medical, orthopaedic, surgical, Accident and Emergency, rheumatology, community hospitals (x 3), intermediate care, children services, learning disabilities, and palliative care. The team numbers approximately 20 staff and the majority of these remain located at the Friarage Hospital, Northallerton with satellite services in other acute settings, intermediate care, the children's centre, and at a Learning Disabilities service within the community. Within the hospital sites, junior OTs rotate, senior and support staff are static. This service became involved in clinical microsystems as part of North and East Yorkshire and Northern Lincolnshire Strategic Health Authority's CMS programme which had three waves of sites joining between October 2004 and January 2005. This document summarises the implementation process, reported outcomes and perceptions of those involved in the process of the value of the CMS approach.

Data collection

In September 2006 the HSMC evaluation team and the Hamilton & Richmondshire PCT Occupational Therapy service agreed to conduct a case study of the latter in order to explore and evaluate their use of CMS. The proposed site evaluation included:

- Face-to-face interviews with a sample of those involved, conducted in a site visit on September 15 2006, and;
- Ongoing collection of data relating to the CMS implementation process and its impact on the team. Any such data was collected during the site visit and in ongoing liaison between HSMC and the OT Team.

At the time of writing, interviewees had been conducted with four of the Occupational Therapists involved in implementation of CMS. One of these joined the team during the

implementation process. Following data collection, all data was collated and analysed by the evaluation team.

The implementation process

The decision to introduce CMS reflected awareness within the team that they were not operating as effectively as they would have liked and that better communication and co-working amongst OT's within and between sites would benefit the service. Some of these difficulties stemmed from the dispersed nature of the team and subsequently little interaction between some members. Involvement in the SHA programme was initially suggested by the then service head and this was subsequently taken forward by two members of the team who attended the early programme workshops. After the first two of these meetings subsequent attendance was shared amongst team members. Each interviewee reported attending at least one meeting and some as many as five. Initial judgements varied with some respondents immediately impressed whilst others struggled with what they considered to be a 'woolly' and 'difficult' concept. An external CMS coach was assigned to the team who attended workshops with the team and spoke to the Trust at departmental level. Apart from this involvement, however, leadership of the process was provided from within the team. Following initial meetings the team attempted to set the parameters of their 'microsystem'.

'It developed into the microsystem of the people that were interested in it. We looked at the issues that we felt we had and most of them were to do with the OT's and if we solved them we could work on expanding it to include other people.'
(resp 1)

Six-weekly meetings of those designated part of the microsystem were arranged by the lead OT within the team with the purpose of identifying and overcoming impediments to effective co-working, as well as identifying positive aspects to current practise. These took place at locations outside of the dept: a fact which was cited as important by respondents. Issues raised in these meetings included: the need to improve listening and communication skills, as well as the need to improve the physical environment and access additional capacity and resources. With regards to communication emphasis was placed on the need for better sharing of information and mutual recognition of areas of

good work, and the importance of having confidence in colleagues. These aspects formed a programme of improvement which the team worked towards in the ensuing months. Weekly staff meetings were arranged following the first CMS meeting. These were short communication meetings for main department staff. Involvement and engagement in CMS increased during this process although not all team members participated equally.

'Initially it was very, very slow to get off the ground because we were thinking 'Oh it's just yet another NHS hair-brained scheme'. You think 'Yes more high paid managers sitting round in suits when there's a shortage of nurses.' (resp 2)

'Some of OT are keener than others, some have been to all the meetings and really give it their all and others turn up occasionally and some have dropped out completely.' (resp 1)

Within meetings the team were asked to share the lead in devising means of addressing identified areas for development. These involved group activities (such as word games), information giving and discussion. These were devised by the team rather than deriving from either the 'Green Book' of CMS tools or techniques borrowed from other CMS implementer sites.

The team discontinued involvement with the broader SHA programme preferring to take forward developments internally. This was partly a reaction to perceived limitations of the programme approach and partly due to practical difficulties in assigning time to attend programme sessions. In general, maintaining internal enthusiasm and momentum was prized more highly than external facilitation and sharing with other sites. For example, schemes developed elsewhere which involved IT-based solutions were not embraced by the team. However, more recently someone from outside of the team with improvement expertise (an ex-lead for the service) led a process of re-visiting and re-evaluation of the CMS initiative.

Overall, respondents indicated that these and other factors may have made progress more drawn-out.

'It has taken us longer and it's been slower but we have had quite a lot of upheaval and lot of staff leaving.' (resp 1)

Perhaps also as a result of the relatively isolated approach adopted by the team, some respondents indicated a lack of familiarity with the origins and components of the CMS approach.

'I'd like to know where it's come from. I've not known if it is a rolling program. Is it something that's with us for all the time or is it coming and going?' (resp 3)

However, the underlying principles were widely understood and interviewees were able to offer cogent definitions of CMS:

'A group of people that work together with common goals and aims who want to improve things within that team.' (resp 1)

'It's to do with team-working and how you relate to people that you deal with day-to-day and how you can help or hinder that working.' (resp 2)

This was despite initial confusion sparked by misinterpretations of the title 'Clinical Microsystems' which evoked associations with Information Technology.

Benefits

Respondents varied in the extent of benefit which they attributed to adoption of a CMS approach. However, all agreed that communication had improved as a direct result although this was seen as susceptible to changes in circumstance:

'I think on the whole the department is more cohesive than it was. We still have blips if something happens that isn't popular or flattens everybody. They don't seem to use the microsystems to be able to react differently but it has improved the day-to-day stuff.' (resp 1)

'By being good with your communication you can help it rather than paddling your own canoe and not let others know what's going on ... I think team spirit over here has improved. I noticed that within the first couple of sessions.' (resp 2)

'I would say we've all benefited. We've all learnt to talk better, support each other and back each other up. Even if they might not always agree with you, you know that they listen to you and give you their support.' (resp 4)

'Communication has improved but it is very fluid. It's something we have to do constantly otherwise we just get caught up in our own little things.' (resp 3)

CMS was credited with formalising the need for listening and sharing, and also with having given a platform for less qualified members of the team to input into service improvements. Respondents spoke of having been granted 'permission' and 'a voice' to get involved in change.

A cautionary note was expressed by one respondent who felt that the process of self-analysis occasionally threw up perceived or actual limitations that could negatively affect confidence. This was despite the adoption of recognition and reward schemes such as the 'star of the month' award.

Outcomes/changes to practice

The team appear to have applied the CMS approach primarily as a means of team building and improving working relationships – for example identifying routine issues such as keeping the workplace clean. Thus the focus has been on the 'People' aspect of the '5 Ps'. Process and patient issues have not been specifically addressed to date.

Key enablers and barriers

There was a consistent thread of mistrust towards externally imposed improvement initiatives which extended to CMS for a number of respondents. The decision to take the process forward internally had therefore been important in generating broader support.

'When (internal leads) got personally involved and it was coming from among us rather than the latest green paper, sort of thing, then yes it made more sense.'
(resp 2)

Some respondents actively disapproved of external involvement, considering this inhibiting, whilst others felt that an injection of outside expertise may have aided the process.

'It would have been nice initially if somebody had come and looked at what we were doing and maybe given us a bit more leadership, to try and get more people on board.' (resp 1)

Despite this, respondents were unanimous in emphasizing the importance of internal leadership. This was seen as crucial in achieving widespread involvement which in turn was cited as major condition of continued progress. Concern was expressed in this light at the number of staff members recently recruited who had no formal involvement in CMS – especially those based within the community and therefore routinely removed from the main site.

The process was seen as not being robust to pressures on capacity.

'Staff shortages make it harder. You get bogged down in what we've got to do, you prioritise and for me personally that comes behind some of the other things I have to do, pressures on the ward, things like that.' (resp 3)

'Not having enough staff threatens the process. We are low staffed currently and the more people that leave the harder it is to get a group with time or inclination because obviously the stresses from work increase as you've got more to do.'
(resp 1)

Also 'catastrophic events' were seen as threatening and as potentially triggering a resurfacing of less positive ways of working:

'We introduced a proposed reconfiguration to the service in January and when we introduced it the whole microsystems was forgotten about, dissolved, and everybody went back to old ways.' (resp 1)

The importance of continuing regular meetings was asserted in the light of such threats although some respondents noted a growing call for these to be held less regularly.

Sustainability/spread

A number of factors – including staff turnover and shortages – posed difficulties for the continued application of the CMS approach, although at the time of evaluation the team intended to continue and build on the improvements achieved. In general, those interviewed felt that the process relied for its succession on the leadership and enthusiasm of key individuals rather than being more self-sustaining, although this was not a unanimous view.

'We come up with lots of ideas but it's following them through that is the hardest bit. I think it needs somebody to run with and keep pushing it otherwise you slip back ... I think it will continue but I think it will be very sparse. It will need people to really push it. I think it is dependent on those people. Otherwise other things take over.' (resp 3)

Levels of commitment to the process were cited as being variable although it was felt this reflected the difficulties of being a dispersed team.

Conclusions

Overall, CMS was adopted primarily as a form of team-building which consisted of internally arranged weekly meetings focussing on improving co-working and communication. In this respect, interviewees all expressed the view that benefits had been accrued and that the process had been worthwhile. Although these benefits were widely cited, none felt that the team was currently operating ideally or that the possibility of retrenchment into previous patterns of behaviour could be discounted. This was seen as a possible effect of external factors and staffing issues and as being influenced by

some ongoing areas of distrust between team members. The team clearly had felt some scepticism and doubt in relation to the broader CMS SHA programme and had therefore taken forward the process internally. This may have impacted upon momentum although it had also clearly enhanced involvement.

BEVERLY INTEGRATED COMMUNITY MENTAL HEALTH TEAM

Introduction

The Beverly Integrated Community Mental Health Team was created in October 2002 following the merger of NHS and Social Care mental health services into one NHS organisation in a Section 31 partnership agreement between Hull and East Riding Community Health NHS Trust and Yorkshire Council. The team provides a range of services for people with mental health problems resident in the East Riding area and their carers. The integrated service includes community mental health provision from both organisations, in-patient units for adult mental health and the Assertive Outreach Service. Overall the team numbers approximately 30 staff. This service became involved in clinical microsystems as part of North and East Yorkshire and Northern Lincolnshire Strategic Health Authority's CMS programme which had three 'waves' of sites joining between October 2004 and January 2005. This document describes: implementation, reported outcomes, and perceptions of those involved in the process of the value of the CMS approach.

Data collection

In September 2006 the HSMC evaluation team and the Beverly Integrated Community Mental Health Team agreed to conduct a case study of the latter in order to explore and evaluate their use of CMS. The proposed site evaluation included:

- Face-to-face interviews with a sample of those involved, conducted in a site visit on September 18 2006, and;
- Ongoing collection of data relating to the CMS implementation process and its impact on the team. Any such data was collected during the site visit and in ongoing liaison between HSMC and the Beverly Team.

At the time of writing interviewees included operational managers from both health and social care backgrounds and a mental health nurse. Following interviews and other data collection the evaluation team conducted collation and analysis.

The implementation process

The Beverly team were recruited to the Strategic Health Authority CMS programme which was initiated between October 2004 and January 2005. This involved submission of a written application, which, when accepted, entitled the team to access a series of workshops in which CMS was explained and teams involved in the programme could share experiences and progress. The SHA also made the option of accessing a 'CMS Coach' – a specialist in this area of improvement – for external support and facilitation.

A business case was made for involvement in the programme which involved arranging off-site CMS days for the entire team and this was approved at senior manager level within the service. Those leading the process within the Beverly team attended the programme meetings at the outset and made attendance at further meetings available to all team members on a voluntary basis. Three team members attended all of the programme workshops and others attended an average of between two and three. Representatives were required to feed back from these days to the six half-day meetings arranged internally.

Attendance at the team 'days out' was voluntary although non-attenders were exhorted to participate and emphasis was placed on the importance of the CMS process. The focus of these meetings was initially on the 'process' element and involved mapping current systems and activities. Attention was given to key areas of work such as assessment, review, planning processes, and team objectives. A staff questionnaire – although not that provided as a specific CMS tool – was also used to gauge views and feelings. This questionnaire was later returned to in order to gauge patterns and shifts in team morale. The meetings took place over a period of approximately six to nine months and a number of areas for work were identified.

As a result of these processes the team identified team building as an important area for improvement. They also used the PDSA (Plan, Do, Study Act) cycle in order to help implement identified areas of change and improvement, and to analyse referral patterns. In all of these activities the team drew on support from their designated CMS coach – for example in administering and analysing staff surveys.

Respondents felt that a number of factors had impeded the implementation process. Initially, the most important of these was the relative unfamiliarity of those leading the process internally, with the underlying principles of CMS and expressions of these including for example the '5 Ps'.

'I think a few people should have gone on a few days about microsystems in order to know what it means and how you are going to use it. It was only until half way through that we saw how it fitted really. If we'd done that earlier we probably would have used it differently.' (resp 1)

The resulting lack of clarity was compounded as the implications of integrating services and the proposed adoption of self-managed teams were being worked through at the same time as CMS. The implementation process was therefore hampered by the association of CMS with these other difficult and sometimes unpopular changes.

'Because people were feeling that we needed a manager, that the self-managed concept was not for them, I think the waters got muddied so it was easy to blame the microsystems when it was more to do with the self-management.' (resp 2)

During the process it was decided that adopting self-managed teams would work against fostering a joined-up approach and so an overall manager was appointed. By this stage, however, respondents felt that valuable momentum had been lost.

Benefits

Despite these difficulties respondents were able to point to a number of benefits from CMS. Chief among these were felt to be improvements to processes and team communication. Thus, CMS was seen as helping to address some of the difficulties of instituting inter-agency partnerships.

'Eventually, when we understood the 'P's, it made us focus. It began to be clearer that we were all here for patient care and so that was a joining for us really and it was probably some of the process stuff that was getting in the way.' (resp 1)

'I think that clinical microsystems probably helped people to get more involved and people started to take on roles. People who normally would fade into the background or sit on the fence were doing bits of research or working on projects.'
(resp 2)

'It gave us some tools – some positive tools – because we were in quite a negative place and it gave us some positive ways of team building. It gave us some ways out that would bring us together ... At the end of the day that's what we got out of it: it helped the partnership.' (resp 1)

The monthly meetings were seen as positive in that they made team members more open to change and new ways of working, and the delivery of real changes made people feel more positive about CMS. Morale was improved by the focus within CMS on positive as well as negative aspects of current work and it was felt that professional barriers were being eroded. One respondent noted that the periodic survey exercise contained, if anything, increasingly negative comments and opinions. However, this was interpreted as evidence of an increasing openness and engagement, and the empowerment of less senior staff members to be critical:

'Some people saw it as a waste of clinical time but others got a lot out of it and felt that they could get involved with something that normally just managers or leaders get involved in.' (resp 2)

Further benefits were identified in areas of clinical governance and professional development as a result of attention paid to current working practices although some were sceptical about attributing this solely to CMS.

'I'm not sure microsystems made a whole lot of difference apart from it did give us an opportunity to look at ourselves as a team. But a lot of it we could have probably done without the microsystem.' (resp 3)

The incremental approach adopted in the CMS framework was seen as especially helpful given the major upheaval that the team had undergone and were still undergoing. No

negative consequences of adopting CMS were identified apart from the opportunity cost of taking regular time out of routine work. Respondents were wary of asserting any major impact on patient care or service quality. This was inferred in some cases from improvements to assessment and the increasing clarity in roles and responsibilities but the team were unable to evidence these inferences with outcomes or other data.

Outcomes/changes to practice

As indicated a number of potential innovations had been identified and implemented. These included:

- Changes to assessment (including conducting joint assessments);
- Re-working of the duty system through imposition of a rota system;
- Re-balancing of capacity to reflect bulges in weekly referral rates;
- Use of team building techniques – including organising a central meeting place for staff lunch, and;
- Implementation of peer supervision.

At the time of writing the team had not reported data indicating any measured impact of these activities.

Key enablers and barriers

Respondents valued the programme meetings as a means for sharing experiences, particularly of difficulties and how these were overcome. The internal monthly meetings were also considered central to the developments undertaken and benefits accrued. In particular, the opportunity for reflection - identifying areas of good and bad practice and strategies for improving the latter - was considered important by respondents. However, there was a perception that momentum generated initially had tailed off somewhat. This was attributed to the simultaneous re-organisations detailed earlier. Interviewees indicated that, in retrospect, CMS might have been more actively pursued and therefore more effective if adopted at a different time.

'I think we rushed at the door a bit too quickly. We shouldn't have engaged in the CMS process at that point. The reasons why I say that is because we'd only just integrated as a service. We were still trying to find our feet operationally and otherwise. We didn't have anything in place. You had two huge, independent organisations suddenly being integrated into one team, and we didn't have anyone to drive it – we didn't have a manager. I think if we did it now we'd do a better job of it.' (resp 3)

Respondents described resistance from team members to components of the CMS approach – including the '5 P's framework and the tools contained in the CMS 'Green Book'. In the early stages of implementation those leading the process did not fully appreciate the extent to which these elements were optional and felt that this knowledge could have helped with presentation of the CMS approach to the team. Even so, early successes and development of wider support convinced some, although not all, sceptics to engage. Whilst the leadership team were appreciative of the external support they received, some expressed a view that more involvement from the broader programme might have helped overcome difficulties. Another view expressed was that some team members felt that CMS had been imposed rather than explored and that this had contributed to resistance. Again, this may have been due to a misperception as to the principles of CMS implementation as set out in the literature.

'I think some people probably thought we were just like guinea pigs being experimented on. They get suspicious and just think 'Oh here's something else that they're going to foist upon us.' (resp 2)

Another theme mentioned in interviews concerned the role of senior management within the service. From this perspective some of the issues identified in the CMS process could not be responded to effectively from within the microsystem and required strategic input to achieve substantive change. It was felt that understanding, enthusiasm and input at a higher organisational level had not been forthcoming at this time.

'We naively felt that we could use the microsystems to help us during the transition but I think we found that the things that needed to be resolved weren't at that level. It was the strategic partnership – that layer, that microsystems wasn't even

touching ... We needed somebody to take things forward on our behalf to the strategic boards and for somebody to fight our corner.’ (resp 3)

It was felt that issues such as, for example, the need to resource identified improvements and the need for learning to be shared with other areas of the local health service were left unaddressed. This issue was part of the rationale for rejecting a structure of self-managed teams in favour of appointing an overall service manager. Concerns were also expressed at the difficulty of achieving change with a relatively large microsystem.

‘What we started to realise was that the other teams using CMS were small – no more than eight people. And there’s us with 30 people. So the alarm bells started to ring then. For it to work I think you need to have a smaller team to be honest.’ (resp 3)

Sustainability/spread

Respondents found it difficult to identify the boundaries of CMS’s influence on the team although there was consensus that some current areas of good practice clearly dated back to its introduction. However, in an active sense, application of CMS tools and meetings had ceased at the time of writing. Again, there was a belief that to some extent CMS had helped the team to manage change but also that it could have been more effective if implemented under different circumstances.

Respondents felt that CMS had relied heavily on key individuals whose absence would have made its implementation impossible and that a similar ‘championing’ of the process would be required in any future revisiting. Ironically, rejection of the idea of self-managed teams did not lead to re-appraisal of CMS. Instead, CMS was considered by some in the team to be redundant in the absence of the proposed arrangements.

Conclusions

Benefits accruing from the team’s adoption of CMS were cited by each respondent and each could see the potential value of the approach for teams like theirs (albeit not necessarily the size of the Beverley team). Few of the CMS tools were actually used,

although concrete and apparently lasting adjustments were made to systems and practices. Ultimately a combination of environmental factors, the unfamiliarity with CMS, and limitations to the level of support and outside input, were seen as weakening the process. The relationship of CMS with self-management and the broader partnership agenda were never successfully untangled and at times those leading the change process felt isolated.

NORTH LINCOLNSHIRE & GOOLE HOSPITALS NHS TRUST: CARDIAC REHABILITATION (CR) TEAM

Introduction

Northern Lincolnshire and Goole Hospitals NHS Trust was established in 2001 following the merger of North East Lincolnshire NHS Trust and Scunthorpe and Goole Hospitals NHS Trust. The Northern Lincolnshire and Goole Hospitals NHS Trust Cardiac Rehabilitation team covers the Scunthorpe and Goole sites. CMS was introduced to the team in July 2005 when North and East Yorkshire and Northern Lincolnshire Cardiac Network asked for expressions of interest from organisations in the area following the first wave of CMS national pilots. This document summarises the implementation process, reported outcomes and perceptions of those involved in the process of the value of the CMS approach.

The Cardiac Rehab team

The team had been in existence for approaching ten years and consisted of cardiac specialist nurses (one based in the community), a further cardiac specialist nurse with a counselling role, and a full time administrator. Many of the team were long-serving in the hospital and had previously worked in the Trust's Coronary Care department. Patient populations included those with myocardial infarction, heart failure and PTCA, and those undergoing cardiac surgery. At the time of embarking upon the CMS implementation process the team were temporally relocated whilst building work was undertaken and this had led to upheaval and some disruption to normal working practices.

Data collection

In September 2006 the HSMC evaluation team and the Cardiac Nurses agreed to conduct a case study of the latter in order to explore and evaluate their use of CMS. The proposed site evaluation included:

- Face-to-face interviews with a sample of those involved, conducted in a site visit on September 8 2006, and;

- Ongoing collection of data relating to the CMS implementation process and its impact on the team. Any such data was collected during the site visit and in ongoing liaison between HSMC and the Cardiac Nurses Team.

Interviewees included Cardiac Specialist Nurses, the team's Cardiac Counsellor and the administrative worker. The initial CMS lead within the team was not available for interview at the time of the evaluation. All data was subsequently collated and analysed by the evaluation team.

The implementation process

The local Cardiac Network was integral to the process of implementing CMS. Following a number of initial meetings, the team began to attend CMS workshops organised by the Cardiac Network which enabled them to develop an understanding of the approach and to interact with other teams involved in its implementation. These were made available across the team - with each team member attending at least two such meetings - and constituted the primary source of outside learning and support throughout the early stages of implementation.

Following the initial workshops, the cardiac rehab team undertook a process of 'identifying their microsystem' and established a regular weekly meeting in order to progress the implementation process. Two of these meetings were primarily taken up with the two CMS leads within the team introducing the CMS concept. Involvement in these meetings was initially not universal but eventually came to include all team members. Prior to this the team had undertaken a mapping exercise (although not using tools from the CMS 'Green Book') to identify their areas of work and to plot the patient journey through their service. This led to suggested changes which were implemented by the team. Then, as progress was made, individual team members were assigned the role of reporting back and sharing ideas at subsequent workshops.

The team had been selective in their use of CMS tools and facilities. The website made available for implementers to share learning and resolve difficulties had proved impractical and had apparently suffered from technical failure. The tools contained in the

'green book' were unfamiliar to the majority of interviewees, as to differing extents, were the '5 Ps', the 'CMS coach', and the origins of the CMS approach in general. Despite this, the team were generally convinced of the value of the approach and had a clear idea of its essential principles and features. In response to a request for a definition of CMS, one was unable to offer a response, and the others stated:

'It's about looking at yourself and your place in a broader system' (resp 1)

'It's another name for what goes on around you. It's about fundamentals rather than the big clinical stuff' (resp 2)

'It's a group of people working together to improve things' (resp 4)

The main tool adopted by the team had been the Staff Survey which they completed and submitted to representatives of the Cardiac Network for analysis. This exercise, combined with the prior process mapping exercise, and weekly CMS team meetings, enabled them to identify area of strength and weakness in their practice and to implement improvements.

Overall, the process of implementation was seen by respondents as having been far less daunting and time consuming than anticipated and this was a major feature in winning over sceptical team members. However, this was not a universally held view and respondent comments reflected differential levels of involvement, engagement and perceived benefit with one team member feeling that the broader benefits accrued to the team were not shared in their specific case.

CMS was seen as offering a flexible and non-prescriptive approach to implementation with those involved free to select the elements that most suited the specific requirements of their microsystem. This was identified as a strength of the programme.

'You can use as little of it as you want or you can use the whole lot of it. You don't have to use everything that's in the folder. You can take out what you want, and you can also keep going back.' (resp 4)

Benefits

Respondents framed the perceived benefits of CMS in terms of the team and what they had gained (as opposed to other measures of benefit perhaps relating to productivity or patient satisfaction). Enabling self-reflection was seen as a major benefit.

'It makes you look at yourself and what you do. Because sometimes you just bob along don't you? Without really looking at whether what you're doing is the best way to do it.' (resp 1)

The staff survey was seen as having been useful in identifying the relatively healthy relationships between team members and this had a reassuring effect on the team. Interviewees felt a strength of CMS as an approach was that it identified and acknowledged their successes. It had, however, also highlighted areas for improvement which were tackled in the weekly meetings. This was almost unanimously seen as having led to better communication between team members:

'Before, there was no communication. Now we're more communicative. That's the main benefit of it.' (resp 2)

Formalising the process of discussion and group interaction had an empowering impact on team members previously reluctant to broach difficult topics:

'It gave us a voice and that could be used to stop any back-biting among people because you were able, when you had your meeting, if you had something to say you were able to say it without causing any offence.' (resp 2)

Two interviewees saw specific benefits from the CMS approach in helping to manage transition and upheaval – for example due to changes in the location of the team.

Outcomes/changes to practice

As a result of CMS the team had implemented a number of adjustments and additions to their working practices. A team notice-board was used to provide updates and reminders

to team members. This was considered to be of particular benefit to those whose working practices diverged from the majority of ward-based nurses. An annual 'de-cluttering' of the team's working environment was also implemented, although not all interviewees attributed this innovation to the CMS process. The team also implemented an additional stage into the patient pathway with one Cardiac Specialist Nurse charged with conducting 'discovery interviews' with potential service users.

Outcomes deriving from these fairly minor adjustments to practice were emphasized less than the benefits of increased communication which was seen as the primary area of progress. Some went further and argued that practices hadn't changed to any significant extent and that this reflected the relatively effective prior working of the team.

'For me, there was nothing really new out of it ... ok we implemented notice-boards and things like that but I think that would have happened any way.' (resp 3)

All interviewees agreed that the relatively piecemeal changes undergone were a reflection of the relative strength of the team prior to adoption of the CMS. Respondents perceived that, in this, they were untypical of teams involved in the broader CMS programme.

As indicated, interviewees did not support their advocacy of CMS with reference to improved patient outcomes, although each identified this as the primary objective of the service. CMS leads within the team indicated that this was an area of potential future work. In particular, it was felt that potential patient sub-groups – for example those currently not referred to the team – could be consulted about their service needs.

At the time of writing there were no specific data referring to the impact of the changes undertaken on any aspect of the team's work.

Key enablers and barriers

The importance of gaining the support and consensus of the whole team was emphasized as an important factor in successful implementation of the CMS approach. The extent to which this had been achieved was perhaps slightly overstated by the more

enthusiastic exponents of the approach although all respondents agreed that the process had become inclusive.

'The important thing is that we all agreed to do it. I know other teams have tried it and it hasn't worked and I think that might be the reason. At the beginning we all sat down and agreed to do it.' (resp 1)

A small number of the team had some prior experience in service improvement initiatives – including some promoted by the local Cardiac Network - whilst the majority had not. These latter team members expressed some cynicism at the volume of 'initiatives' and 'reforms' to which health care was subject, indicating that they were sceptical of the benefits of many such schemes.

The other frequently cited enabler was the leadership provided from within the team. This seemed to involve two team members pioneering and 'championing' the process. External support and facilitation, inasmuch as this was forthcoming, was also seen by selected respondents as having had a significant impact:

'Key to our success with (microsystems) was the support we've had from the Cardiac Network. We couldn't have done it in isolation. It's crucial to have a third party actively involved.' (resp 4)

Allied to this was the support of the Trust in enabling protected time to conduct the implementation process and to attend workshops. Other factors cited by individual respondents were:

- The structure provided by the programme, so that: 'instead of you rambling you've got specific focuses.' (resp 4);
- The emphasis in CMS on small, achievable steps. This incremental approach was seen as a significant advantage over more intrusive service improvement initiatives;

- The relatively small size of the team and the continuity of service of the staff group employed. Despite recent upheavals the benefits of having a co-located team were also seen as significant in implementing CMS;
- The flexibility to proceed at a pace that suited the team, rather than being hamstrung by targets and milestones. In some cases this involved the realisation that some changes could not be made from within the microsystem, and;
- The level of organisational upheaval that team members had had to negotiate meant that they were not fazed or overly anxious at the prospect of further changes.

Initially not all respondents had felt part of the process. This was partly because of the difficulties in communication which the CMS process highlighted and also partly as a result of the different day-to-day activities and movements of team members, with some standing somewhat outside of common working routines. From the point of view of those championing the process this was overcome by concentrating on maximising support from those more receptive in the hope that others would come on board gradually and indeed when the benefits became more clear some detractors became proponents whereas others, whilst retaining reservations about the value to themselves, acknowledged the benefit to other members of the team. There remained a concern that a difficult context was made more difficult by the expending of time and energy on CMS although this was a minority perspective.

'In the end we imposed (CMS). There were enough people in favour and the others eventually came on board.' (resp 4)

'I didn't get anything out of it that would help me but I'm sure the others did get more out of it.' (resp 3)

Sustainability/spread

The majority of respondents were emphatic in recommending the CMS approach to other teams within and outside of health care. In particular, it was recommended to teams experiencing difficulties. The majority of interviewees also felt the benefits of the approach would continue to be felt and built upon regardless of potential future staff

turnover. At a fairly early stage of the process one of the CMS leads within the team left for maternity leave and had not returned at the time of the evaluation and this had not derailed implementation.

'It wouldn't matter who was here and who was not because what we've got now is various small things in place ... and everything that we've done has become our work and we longer notice it – its part of who we are.' (resp 2)

This perspective was not universally shared, with some respondents feeling that the absence of key individuals would pose a threat to continued use of the CMS approach. However, in general there was a belief that CMS would be implicitly and actively continued irrespective of personnel changes.

Changes in the broader organisational context it was felt could not 'derail' but could make 'dormant' the application of the CMS approach in some instances. However, it was noted by respondents that the team were relatively unhindered by nationally derived targets. As indicated, in other cases it was felt that CMS helped the team manage change.

Some respondents described aspirations towards broader organisational change along CMS lines, envisaging a 'blotting paper' gradually covered by interconnected individual departments or 'systems'.

Conclusions

Overall, despite some variation in levels of enthusiasm and involvement the team considered the CMS process to be worthwhile, particularly in facilitating greater communication between team members and empowering all involved to have a voice. There was some dispute as to the distinctive benefits of CMS beyond this, perhaps reflecting that improvements were experienced more by some staff groups than others, with some respondents feeling slightly removed from the routine processes of CMS implementation. For these individuals, a more calibrated involvement – with team members committing varying amounts of time according to their centrality to the process – might have made the experience less onerous. As the primary strength of CMS was seen to be its impact on internal communication, improvements in service delivery to

patients were more perceived than demonstrated, and the team indicated that they were planning to focus more closely on this issue in the future.

EPSOM AND ST HELIER

Introduction

Epsom and St Helier University Hospitals NHS Trust is a large acute Trust serving South West London and Surrey. The Trust's two district general hospitals, Epsom General Hospital and St Helier Hospital, both offer an extensive range of acute services. St Helier Hospital also incorporates Queen Mary's Hospital for Children and is situated in Carshalton. St Helier introduced Clinical Microsystems (CMS) on two wards – one surgical and one medical (Alex Ward at Epsom Hospital and Ward B6 at St Helier Hospital) - with both teams having different experiences and outcomes of CMS. The CMS were led by the Ward Sisters, and a working group was also established which included nurses, matrons, ward clerks, managers and representatives from the Trust's Patient and Public Involvement (PPI) forum. The Sisters led the process on their own wards, and the working group was used to stimulate ideas and share good practice and experiences.

Matron's Charter

Epsom and St Helier were selected as one of eight initial pilot sites for the Matron's Charter; which sets out ten broad principles for delivering cleaner hospitals (see Jones, 2004 for further information). The pilot sites ran for six months led by the RCN clinical leadership team on behalf of the Chief Nursing Officer, using a CMS approach. Being selected as one of eight national pilots meant that Epsom and St Helier were in the national spotlight, but besides this prestige there was no additional funding attached to the programme.

Epsom and St Helier used the Matron's Charter as an opportunity to address the issue of hospital cleanliness, which it recognised as an important issue to both staff and patients. Within the whole of the NHS, Nurses and Matrons are traditionally recognised as being responsible for cleanliness, but this role is perceived as having shifted in recent years with changes to the educational processes of nurses and the contracting of cleaning to professional contractors in a number of acute Trusts. Interviewees at Epsom and St Helier suggested that they interpreted the Matron's Charter as an attempt to embed

particular practices back into nursing behaviour nationally, but also recognised that it was important to make sure that everybody has a role to play in keeping hospitals clean.

CMS Process

The Epsom and St Helier teams had little access to specific CMS resources prior to the implementation, and felt that some sort of toolkit with a set of resources that could be chosen from would have been useful. Case studies from other sites who have successfully implemented CMS, contacts within a network, or access to a coach who may be able to offer support / training to those who led the project were also cited as potentially useful tools which would have helped the process.

The Epsom and St. Helier experience of CMS was that it brought the teams together with a specific focus on a project, and the protected time to work on a project.

'When they're told to take a step back from the project, they can very much look at it with a different eye. Really the ward sisters were very much key to the project, where they were being given time to stop and listen, whereas they usually just get on day to day and don't often have time to listen. Some people are very good at taking that step back, but others can't and they very much get caught up in the here and now.'

The teams became quickly enthused by the project, although the two wards had quite different experiences of this. Staff from a whole range of levels within the teams were involved, and all were asked to provide input to the project. The CMS operated under the policy that *"no idea is a bad idea"*, and the Epsom and St. Helier experience was that staff became very creative and offered a number of innovative solutions to deal with issues of cleanliness. Including such a range of people allowed the teams to think outside of the 'usual' parameters and get some very different perspectives and understandings of issues. CMS also requires patients to be embedded within the process, rather than as an 'add-on' which has sometimes previously been the case within similar projects. The group reported that the teams had really started to think about patients in a way that had not perhaps done so previously. The teams used these range of perspectives, and

looked outside of healthcare to private sector organisations (such as hotel chains) for inspiration in addressing issues.

CMS was cited as having improved communication greatly amongst the teams, which is a particular bonus within the acute care context where shift work means that the entire team do not always have a chance to communicate with one another. CMS also encourages communication amongst all members of the team, not just with those that people would usually interact with in the course of their daily role. External facilitation for the CMS process was highlighted as being very useful by the interviewees; but recognising that the external facilitator may not need to be entirely independent of the organisation but not well-known to the entire team.

'if they had a facilitator who was part of the ward, it probably wouldn't have worked as well'.

Although CMS was recognised as being useful, there were a few caveats raised about the process. It takes a lot of focus and commitment from those leading the process to make it happen successfully, particularly within an acute care context. The process requires the team to come together and this is not easy within the acute sector where projects have to fight with other priorities - *"no day is a good day"*. Protected time is also required to undertake CMS and this is not easy to find within acute care. Interviewees suggested that the concept of providing protected time is anathema to the culture of acute care, although it was recognised as being more the norm within primary care environments. As the Matron's Charter pilots had no funding attached there were not extra resources available either to 'buy' protected time, or to implement some of the innovative ideas suggested by the team.

Although CMS was cited as offering a good framework and starting point to focus on a project, it was suggested that most of the concepts are not new. In fact, it was suggested that what CMS is in practice is good project management, or a common sense way of building teams and team capacity. CMS was viewed as a good focus on how to undertake a project, which is inclusive and allows issues to be looked at from a variety of angles. The degree to which CMS is not an entirely new approach though could be useful as people will recognise aspects of it.

'When I first heard the title, I thought oh get this, you know, we're going to get something that's all singing and all dancing, dynamic, new, innovative. But really some of it is quite simple, and stuff that we already knew. I wouldn't say I was disappointed, because it's a good way of structuring work, and it's about good project management'.

It was suggested that bringing a range of techniques together for team building and having one specific name for this (although CMS is not a favoured option), which is recognised and supported nationally (for example by the NHS Institute for Innovation and Improvement) would lend the concept credibility and legitimacy more widely within the context of the NHS.

Outcomes

One major change in practice was the production of a bed hanger which is put on the bed of all patients when they arrive on the ward. The teams felt that often patients' perceptions, or fears, of cleanliness are often much worse than the situation in reality; the bed hangers were designed to allay such fears. The bed hangers have a list of items – for example whether the bedside cabinet has been emptied, sheets are fresh etc - which the nurse will go through with the patient when they first arrive and check that all have been crossed off.

'It's a bit like the fear of flying, the fear of cleanliness is worse than the actual level of cleanliness itself. So by having this bed hanger, which is like a thing you have in a hotel. It has some items on there which provide you with information leaflets about infection, that your sheets are nice and fresh for you, that the whole area has been checked and the bedside table has been cleaned for you and so on, and the idea is that the nurse checks the area with this with you when you arrive. They check the whole area and leave the leaflets ... and it's gone down really well'.

The hanger was designed with the involvement of all staff and patients and has been reported as being a big success. The feedback was so positive that it was hoped that it would be rolled out across the whole Trust, although there have been some difficulties

with this in practice. Nurses from other wards do not have the same sense of ownership over the bed hangers and have been slightly resistant to the concept. However, some other Trusts had also expressed interest in the innovation, and it was reported that a private ward had introduced something similar as a result.

A 'How was your stay?' questionnaire has also been given to patients on the wards, and feedback from these can then be used to address any problems or concerns raised. An 'ideas board' has also been introduced, where suggestions about how to improve cleanliness and hygiene may be posted by patients, staff and visitors. As previously stated, CMS was cited as having improved communication and team work within the wards. Furthermore, interviewees suggested that it might have been a form of catalyst for one of the wards which felt at a comparative disadvantage to the other at the start of the process, having not undergone a recent refurbishment programme which the other had. There was a degree of healthy competition between the wards, with CMS proving a real focus point for the ward which felt at a disadvantage originally.

'One team was quite successful, and one for varying other reasons didn't seem to be quite so successful, I think it's fair to say. The one that was the most successful was the one that felt like it was the underdog to begin with. It was really good to be able to see how that team really grew and blossomed, and realised that they weren't in this because they were a really bad team and they just weren't working before. They were in this because they were able to do some really good work...People did things really differently than usual, they went above and beyond and did things that they didn't think were possible usually'.

Important issues and implementation difficulties

The interviewees raised the issue of who should be leading the CMS process as an important point. Originally it had been hoped that a non-executive director (NED) would take overall responsibility for the project, as this would have imbued the project with legitimacy and credibility in the eyes of others within the Trust. The fact that the bed hanger was not rolled out more widely, despite being a success, was perhaps indicative that the project did not have sufficient high-level buy-in. However, it was recognised that the support of a NED would not need to involve a huge amount of input, and could remain

as more of a sponsorship role. The CMS process requires that the members of the team remain the ones with 'ownership' over the process, but that for microsystems to effect change more widely within an organisation as part of the wider improvement process they require some sort of official sanction.

Nonetheless, the make up of the CMS teams do need to have people involved who can effect change. Epsom and St Helier recognised that they had been quite good in forming teams with people who could do this and had the power to 'make things happen' – for example by getting the SLA on the frequency of toilet cleaning changed. The personalities of those involved was also highlighted as being essential. As previously mentioned, the CMS process needs commitment and drive to make it successful and Epsom and St. Helier were successful in involving people who had the 'right' traits. Although there was not an explicit process of selecting people with specific characteristics in the formation of the teams, all the interviewees recognised that the results would probably had been quite different if the make up of the teams had been different.

Important factors cited by interviewees at Epsom and St. Helier were:

- Sponsorship of the CMS process by a higher level; somebody who can affect changes in practice;
- Strong personalities to lead the process;
- External facilitation for the teams;
- Protected time in order to be able to meet as teams and address issues properly;
- Engagement of all levels – “no idea is a bad idea” , and;
- Involvement of patients as an integral part of the process, not simply as an additional add-on later.

Sustainability

Concerns were raised over the sustainability of CMS, and particularly CMS as a sustainable process for ongoing service improvement. One of the sisters who lead a CMS at Epsom and St. Helier moved on to another position and it was felt that this had disrupted the continuity of the process. Although a number of the tools from CMS have been embedded within the teams, there were some doubts over its long-term

sustainability – particularly as there is little in the way of resources attached. The patient environmental action team programme (Peat) was given as an example of an ongoing project which had been sustained, due to the performance targets all Hospitals have to attain and a fund which could be bid to in order to implement certain ideas. Given the pressures inherent within the acute sector, interviewees suggested that without national recognition or resources to execute CMS conflicting priorities might instead win-out in practice.

The group felt that there has been a lot of focus on this particular project due to the high profile attached to being a pilot site, and that not every use of CMS would perhaps receive the same focus.

'We were in the spotlight, we were one of eight trusts that was a pilot for the NHS. We were being looked at and we used that to our advantage didn't we? This was something that the NHS would be looking at us for, so our Trust needed to support us for. So I don't think it's something that you would do every day, but I don't think it's something that you can't, because all of us here could. But it's just a matter of having that focus.'

The name 'clinical microsystems' was also cited as being particularly unhelpful, and doesn't seem to mean very much. A number of interviewees suggested that by changing the name there might potentially be more engagement with any future uses of the process, as the terminology was automatically quite off-putting to a number of people.

Conclusions

Epsom and St. Helier were broadly positive of the effects and processes of CMS, whilst recognising that much of what this entails is in fact not new and is sensible team building and project work. CMS was recognised as a good framework, or a focus for the Matron's Charter project. Epsom and St. Helier had fairly positive experiences of the CMS process and have made a number of improvements within the two wards, although they had quite different experiences of the process. CMS was cited as a good framework by which all staff and patients could be involved within an improvement programme, although this came at a cost of high levels of input and the need to be able to access protected time

which tends to be quite scarce within an acute care context. The teams were very positive about changes to practices they had made (such as the introduction of the bed hanger), but were frustrated that there was not sufficient senior support to roll this out across the Trust. Although the CMS process was thought to have changed the cultures of the wards with respect to communication, teamwork and other practices, the ultimate sustainability of CMS was questioned particularly due to a lack of access to resources and coaching.

NORTH YORKSHIRE SMOKING CESSATION SERVICE

Introduction

The North Yorkshire Smoking Cessation service consists of quite a dispersed team, with people based at several geographical areas around North Yorkshire. The team provides a specialist smoking cessation service for smokers who would like to stop, and to 'stay stopped'. The service also delivers training to health professionals on smoking cessation interventions, and as such has a number of trained professionals associated with the service who are based throughout North Yorkshire (for example in GP surgeries) and provide independent advice to smokers. The team also monitor smoking cessation activity on behalf of the PCTs across the county. The part of the team interviewed for this research are based in York and are one part of the wider service.

The team found out about the CMS programme whilst attending an event for a number of smoking cessation projects. At this event there were some concerns raised about the rates of smoking cessation which had been achieved over a wide area, and it was suggested that a number of teams were failing to meet targets. The members of the North Yorkshire team present felt that the day was quite negative in outlook. However, in the afternoon there was a presentation about the Cardiac Network's clinical microsystems (CMS) development programme which was quite upbeat and positive. The members of the team present felt that it had injected 'a bit of hope' into the day, and that it sounded like a useful approach to take. The team joined the programme in July 2005 and attended the series of workshops which ended in March 2006.

Because the team is relatively small and has to provide a certain level of cover for the office and telephone helpline, not all members of the team could attend the CMS sessions at the same time. Indeed, some members were only able to attend one or two sessions of the programme and felt that the process had been led by particular personalities within the team. The team recognised that because the whole team had not attended the sessions they may not have been able to fully embrace and be fully embraced by the CMS process.

'I don't think we've explored it as far as we can take it yet. Because we were very limited in the numbers of people who could go, and continue to go, it's been limited really. It's at an early stage, things can roll out more. There have been some changes, but it's something to revisit and look at again...I don't think we've yet explored all the options.'

The team suggested that because of this they are at a relatively early stage in the process, but that they are taking the process at their own pace as is appropriate.

CMS Process

In some ways the external context had facilitated interest in the CMS process. Like most PCTs nationally those in North Yorkshire are affected by reorganisations and financial pressures. This has created a somewhat chaotic and unstable organisational context around the team, and the CMS process has allowed the team to focus on their particular services and has offered some stability.

'It came at a time within the service where there are a lot of restrictions, financial restrictions with the PCT and things like that. You were sort of in a box in a lot of ways with other things and it was a way you could get on and actually make improvements with little sorts of things.'

The first thing the team did was to get staff to fill in the standard CMS questionnaire, which was contained in the resources provided by the programme. However, they found that given the complexities in the staffing arrangements of the team, with 12 different people supplied by six different organisations, it proved too complex. The team did however undertake a questionnaire survey of patients. The first asked patients what they thought of the service and what needed improving; as a result patients are now given better information when their appointment details are sent through. A further patient survey is also given at their first appointment to find out what made them attend the appointment, and whether they will be attending their next appointment. This should give a better understanding of the motivations for patients to attending smoking cessation sessions, and what could be done to make them engage on a regular basis. The team also hope to do further qualitative research in order to better understand what motivates

patients to use the service, and any changes that they might make to prove more accessible.

In terms of looking at patterns, the team have mapped referral rates over a two year period, to look at where referrals come from geographically. The team found that there are differences in terms of the areas which patients who access the service come from, and that there are some 'holes' in terms of post code areas of people who access the service. The team can use this information in the future to try and design programmes to get the people from these areas to engage with them. The team also looked at referrals temporally and found, much as they had suspected, that they receive 50 per cent of their annual activity within the first four months of the year. They have now started to look at what mechanisms (such as flexible working, annualised hours and training periods) they might use to maximise clinical contact in the first part of the year when the majority of activity occurs, rather than using a fixed level across the year. The team also used the referral patterns to look at the number of people who were re-attending, as perceptions of re-attendance were thought to be particularly high. From their analysis of referral numbers the team found that in fact only six per cent were re-attending, giving them a better understanding of the nature of their patterns and patients.

The team suggest that they had found the CMS process useful in a number of ways.

'I see it pictorially really ... this it that person and they link to that person and interact with that person and so on. Because you see people as little organisms really and then you can see how they link to that other organism and so on. When I've seen some of the demonstrations pictorially it's really made a lot of sense, and it's very useful to see the system and how it all goes together.'

The team were able to make creative changes to issues they had identified, but felt that there had perhaps not been sufficient support from higher levels of management to make all of the ideas happen. Although the team suggested that it had been useful that higher levels of management had not been involved in the process - and that if they had, the process may have been less effective and people may have been unwilling to engage - some sort of support or sponsorship from management may have been useful. This would have meant that more significant changes could have been made by the team. As

it stands only certain levels of changes may be made and it is felt that significant changes can not be implemented. The team also highlighted the fact that no resources had been made available as part of the process, when access to some funding may have mean that all of the ideas identified could have been implemented.

Outcomes

Performance data

The quantitative data provided by the site includes information on deprivation rates (based on clients 2004 Index of Multiple Deprivation Scores), quit rates, drop out and relapse rates at the 4 week follow up stage of the programme. The data is based on analysis and information taken from a recent site report.

Table 1.1 provides information on the deprivation indices for four geographical areas within North Yorkshire. Areas were ranked by their 2004 Index of Multiple Deprivation scores and assigned to quintiles with one being the least deprived and five being the worst.

Table 1.1: Population by IMD Quintile (5 most deprived)

Quintile	1	2	3	4	5	Total
Selby and York	68,609	57,353	39,524	42,735	61,853	270,074
Hambleton and Richmondshire	22,699	28,935	32,849	23,010	9,543	117,036
Craven, Harrogate and Rural District	54,340	37,650	56,285	40,056	16,625	204,956
Scarborough, Whitby and Ryedale	3,237	26,004	22,835	44,033	61,006	157,115
North Yorkshire	148,885	149,942	151,493	149,834	149,027	749,181

Source: Yorkshire and Humber Public Health Observatory

Table 1.1 demonstrates that Scarborough, Whitby and Ryedale have the highest number of people (per population) in the lower quintiles. Selby and York both have a high number of people in quintiles one and five. This deprivation data was then cross matched against outcome data collected at the four week follow up.

Figure 1.1 provides information on the percentage of clients who state that they successfully quit smoking at the 4 week follow up by deprivation quintile. This demonstrates that the success rate varied between areas and that the highest

percentage of successful quitters tended to occur in the most deprived groups in the population.

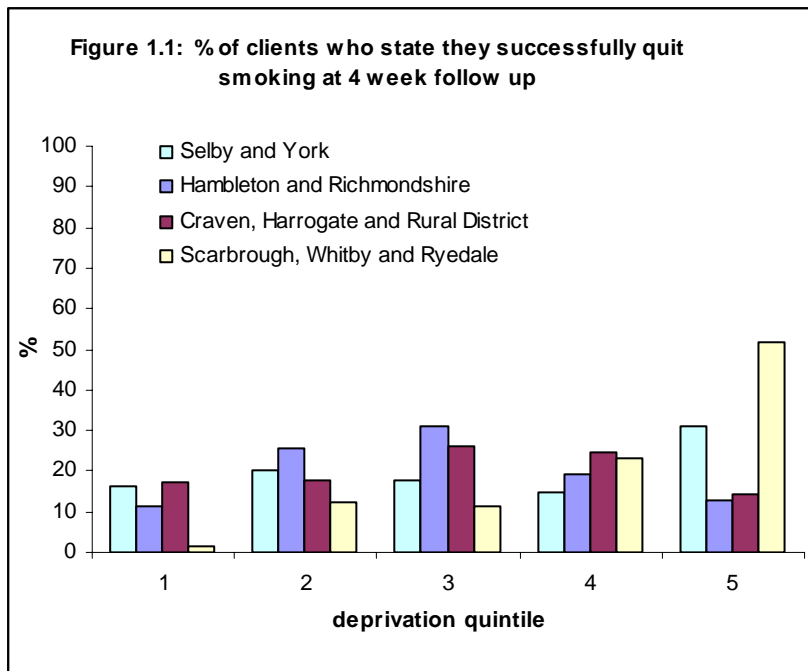


Table 1.2 Number of Clients successfully quitting at 4 weeks, per 1000 population, by IMD Quintile 2005/6 (5 most deprived)

PCT (by postcode)	North Yorkshire Quintile					Total Rate
	1	2	3	4	5	
Selby and York	2.7	4.1	5.2	4.0	5.9	4.3
Hambleton and Richmondshire	3.3	5.9	6.3	5.6	8.9	5.7
Craven, Harrogate and Rural District	3.5	5.3	5.2	6.9	9.6	5.4
Scarborough, Whitby and Ryedale	3.7	4.4	4.6	4.9	7.8	5.9
North Yorkshire	3.1	4.8	5.3	5.3	7.2	5.2

Source: Yorkshire and Humber Public Health Observatory

Table 1.2 demonstrates the quit rates in all areas per 1000 population the data shows a higher uptake in the more deprived groups. However, both the relapse rate and drop out rate are higher in the more deprived groups (see figure 1.2 & 1.3 below)

Figure 1.2 shows the percentage of clients who reported that they had relapsed at the four week follow up. This information is provided by area and deprivation quintile. The data demonstrates that the relapse rate varied between areas and deprivation quintiles. The lowest percent who relapsed was in the least deprived area and the highest number in the most deprived area.

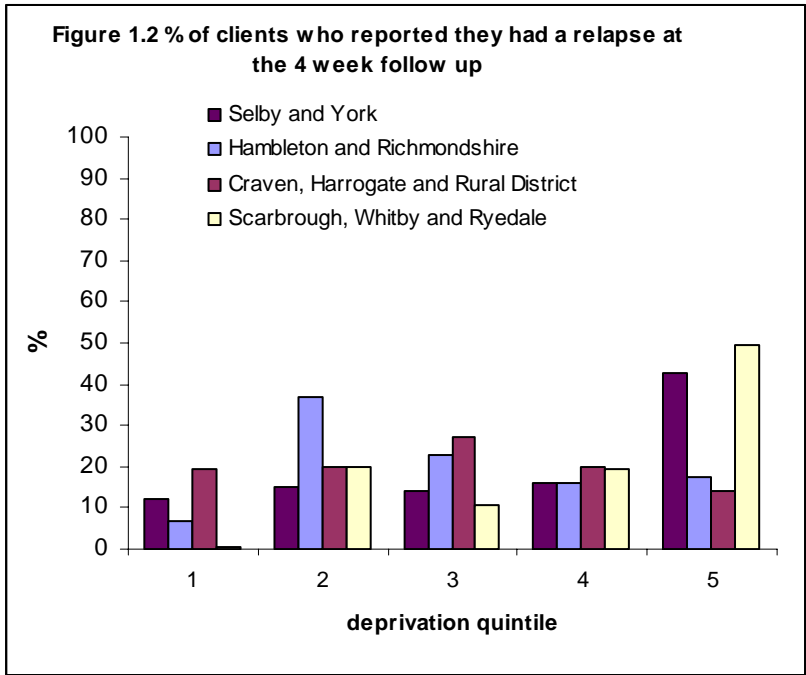
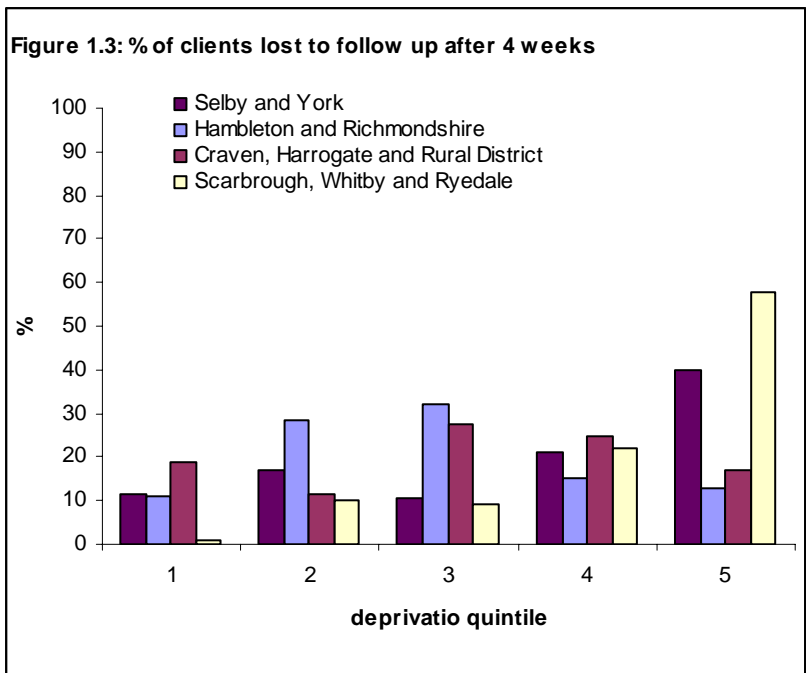


Figure 1.3 shows the percentage of clients lost to follow up. The data demonstrates that the highest percentage of clients lost to follow up occurred in the most deprived areas.



The data suggests that the programme was successful for a number of patients - with success rates for all outcomes tending to be higher in less deprived areas. The evaluation data reported here was taken from data collected and analysed by the site being evaluated. Therefore, it is difficult to report on the robustness of the data collected. Having said this, the analysis provided by North Yorkshire suggests that variation may be

partially explained by the relatively small populations within most deprived areas and least deprived quintiles for some areas.

Interview data

As a direct result of the CMS process, the team suggested that now they are meeting as a full team more frequently than previously. Furthermore, these meetings are now longer and the agendas are not quite as constrained as previously.

'Rather than trying to keep to a tight agenda, there's been much more fluidity because I think we were realising that we were getting frustrated, because we'd meet together and have so much to say and so many opinions but didn't discuss it. So now we've realised we actually need to make the time.'

The team suggested that, previously, meetings had to cover a certain amount of ground within a fairly restricted time and this meant the issues could not sometimes be fully explored and that any additional points that arose as a result of discussions could not be covered due to time restrictions. Therefore, the team feel that they are now better able to discuss any issues which may arise and in more depth. Also specific target groups have now been established around certain issues, rather than trying to involve *'everybody in everything'*.

Furthermore, although the team suggested that there were very few examples of changes in practice, there had been a definite change of culture which they attributed to CMS. Several respondents suggested that the culture of the team had changed from a 'can't do' to a 'can do' culture. The team suggested that they sometimes feel quite isolated from wider services due to the type of service they provide and where they are situated geographically. The CMS process allowed them to change this perspective from being quite negative to being positive, given the external context surrounding the smoking cessation team. The team felt that the CMS process was very useful in making people see that they are able to effect change within their organisation, that their opinions are valued and that everybody is capable of finding solutions to difficulties and problems. In this sense, the CMS process was identified as empowering and giving everybody a 'voice' within the process.

'I feel, from a purely personal point of view, that it's given me a voice. Because at the end of the day I'm the lowest grade here...but it's made me feel that I can say something – that I am entitled to say something. So if I don't like something I will say 'why is that happening, can we not do that?' It tends to be just little things but it really makes you feel like you have a voice.'

The CMS process was cited as being very productive in terms of morale, particularly at a time when there was much uncertainty in terms of the context due to PCT reconfigurations and financial deficits.

A virtual notice-board was produced as a result of the CMS to try and keep members of the dispersed team linked to one another. However, this notice-board was not successful and some staff members found it very difficult to access. As a result this has now been taken down, although there are plans for another website for the smoking cessation service in the future.

Important issues and implementation difficulties

The CMS programme was cited as being useful as it allowed members from different teams to share knowledge and stories about the CMS process. The other teams on the programme with the smoking cessation team were from geographical areas outside of York. The team suggested that if there had been people from the same area, the programme could have been a useful networking experience for all involved. For example, a fire brigade team from a different area took place in the programme. Had they been from the same area they could perhaps have shared public information programmes with the smoking cessation team. In this sense, the programme could have also inadvertently had effects in terms of networking and partnership working, and in effect 'joining-up' a number of the created microsystems within the wider macrosystem.

Some respondents also felt excluded by the label 'clinical microsystems' which they considered implied the need for a clinical background. Most of the team felt that perhaps the name is not particularly useful and would not be appropriate for wider dissemination.

“Well, the fact that it’s got 'clinical' in front of it, I thought – this has nothing to do with me. At the very beginning I thought, this has got absolutely nothing to do with me, it’s this lot. But after a while I saw that it does, it involves everybody. They need to drop the clinical bit, it puts people off.”

One of the most useful elements of the CMS process is that it involves all members of the team, and enables people to find things about their environment that they can change to make their lives easier. Yet, by being called clinical microsystems this may automatically serve to exclude certain members of the team – particularly in this case when not all team members were able to attend the initial sessions at the same time.

Important factors cited by the North Yorkshire smoking cessation team were:

- Sponsorship of the CMS process by a higher level; somebody who can affect changes in practice;
- Strong personalities to lead the process;
- Protected time in order to be able to meet as teams and address issues properly;
- Engagement of all levels, and;
- Networking opportunities within the wider macrosystem.

Sustainability

In terms of sustainability, the team suggested that they do believe that CMS is sustainable, although CMS work would not perhaps be consistently carried out on a constant basis. The process would be likely to go through a series of peaks and troughs in terms of activity, although it would consistently be there in the background. In this way, one of the respondents likened the CMS process to a wave-like motion; where, a lot of work would be done on the CMS process initially, after which relatively little work could be done for a while until a point where an external event would prompt a re-launching or re-start to the CMS process. Again, quite a bit of activity might then follow this prompt, before it would tail off slightly before the next shift in the external environment when this would again ignite the process. In this way CMS was perceived as being a useful framework for an ongoing improvement process.

Conclusions

The North Yorkshire Smoking Cessation team were broadly quite positive of the CMS process. Given the difficult external environment surrounding the team and their perceived isolation from a number of the other services in the area the CMS process seemed to provide a useful framing or focusing tool for the team during a time of uncertainty. The CMS process has pulled the team together and changed the culture somewhat and greatly improved morale. The CMS process was recognised as being quite empowering, and not a top-down directed edict, but something that has developed in a more local and organic way.

Although the interviewees pointed out that they had not made any 'major' changes to practice as they saw it, they had collected significant amounts of data and appeared to have a reasonable understanding of their patterns and people accessing their services. The team also recognised that they were at a relatively early stage in terms of the process, as they had been unable to send all members to the sessions, but that they were taking the process at a pace defined by themselves. This would suggest that having gained a better understanding of their immediate context the team may be able to make positive changes to practice in the future, at a time which is appropriate. However, this may also mean that they need some recognition or commitment by local management as some changes to practice may not be achievable without broader support. It might also be useful for the team to link with other microsystems which exist in the local area in order to make wider changes throughout the local macrosystem.