

MCA

Sheffield Microsystem
Coaching Academy

Final Report

Sheffield Microsystem
Coaching Academy



THE
Dartmouth
INSTITUTE

FOR HEALTH POLICY & CLINICAL PRACTICE

GEISEL SCHOOL OF MEDICINE AT DARTMOUTH

Sheffield Teaching Hospitals 
NHS Foundation Trust

Sheffield Children's 
NHS Foundation Trust

Sheffield Health and Social Care 
NHS Foundation Trust

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Section 1 Abstract

Abstract

1. Please provide a brief overview of your project

The Sheffield Microsystem Coaching Academy is an innovative continuous improvement initiative where front line staff train as improvement coaches and work with teams to help them improve the quality and value of care they deliver for their patients through understanding their systems and processes and redesigning care through testing small changes.

At its core the MCA aims to help frontline staff improve care for patients.

Clinical microsystems are the building blocks of organisations such as hospitals and can be characterised as the small units where care happens with a group of patients. Typically examples of clinical microsystems are:

- wards
- outpatient clinics
- diagnostic departments

Support microsystems provide patient care indirectly by supporting the work of other microsystems. As an example a pharmacy department would be a support microsystem. Many support microsystems are indeed corporate microsystems such as the recruitment function within HR or an aspect of Hotel Services such as laundry services. Although much of the work of the MCA has focused on clinical microsystems (primarily because this is where the demand and will to improve lies) the principles work equally as well with support or corporate functions. In reality many supporting and corporate functions become involved in microsystem improvement as teams become more mature in their development and seek to work on improving elements of their service which require the input of other services. It is at this point that supporting systems, such as pharmacy, are asked to input in to existing microsystem improvement work.

Coaches come to the MCA from a wide range of roles but all but the majority train to coach alongside their regular day job. The course extends over 5 months and coaches are expected to actively work with a microsystem team as they train. This involves a substantial commitment from coaches in terms of time and from leaders in supporting training. Additionally leaders are required to help enable the microsystems themselves with time and space to meet with the coach on a regular basis. Without this enablement in terms of space and time to meet the effectiveness of microsystem improvement work is greatly reduced.

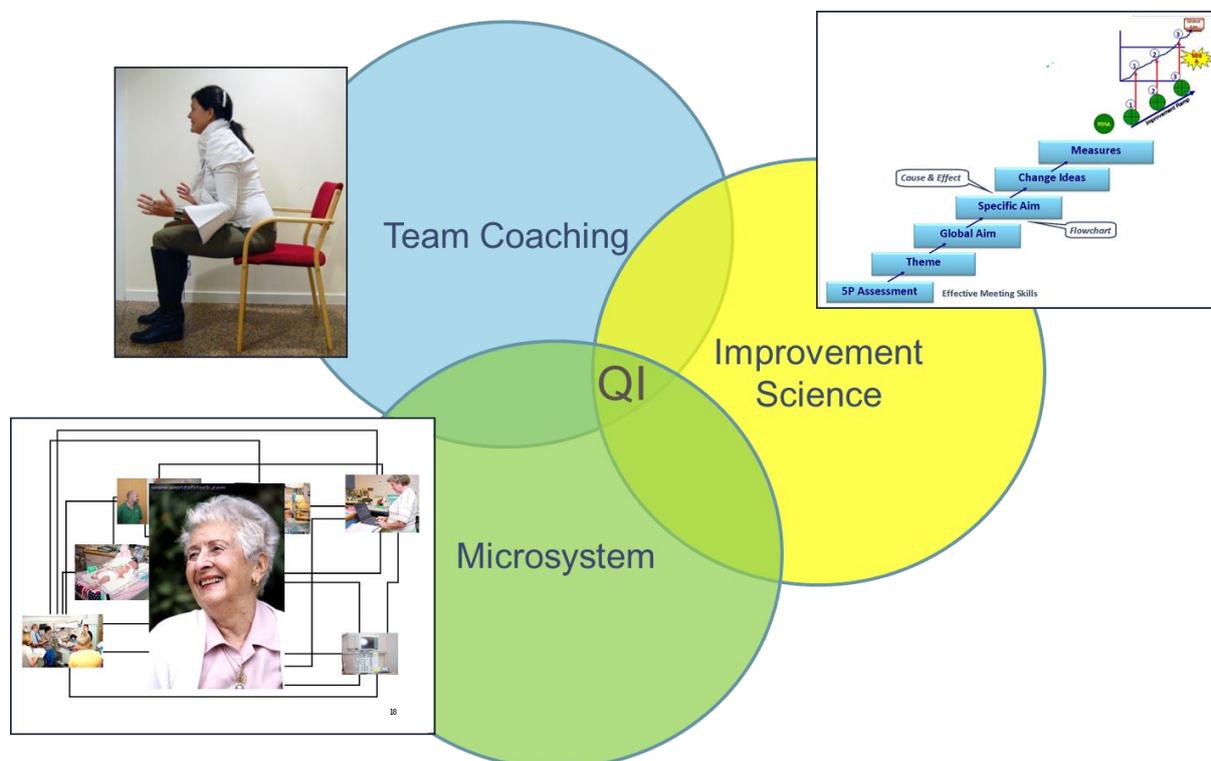
The MCA seeks to help promote quality improvement by engaging frontline teams by supporting them with coaches and helping them foster a **spirit of ownership** for improvement work. Coaching is primarily a helping role, teaching improvement science, how to conduct effective meetings and coaching strategies that allow the team to develop behaviours and habits consistent with continuous improvement. The ultimate aim of this is to help change the culture within the healthcare system in Sheffield to one of continuous improvement where improvement is seen as an integral part of everyday work. The MCA has never marketed individual pieces of improvement work as distinct projects with defined, start and end points with pre-defined markers in-between. It is the element of coaching; a

recognition of the particular context of the microsystem and the structure of improvement science that we believe provides the greatest chance of realising this. In addition to a focus on changing culture at the microsystem level the MCA provides one of the main vehicles in which to influence and reinforce how partner organisations have decided to promote, understand and develop quality improvement. The 5 month course provides the framework for coach training but helps influence the decision to use microsystem improvement as the model for quality improvement in Sheffield. In terms of branding the MCA is now very well recognised across all partner organisations.

In order to help improve microsystems the MCA has 3 core elements that must come together for quality improvement (QI) to have a chance to flourish. These are:

1. The microsystem itself, with patients at its heart, and a lead improvement group to guide the improvement work by representing and involving the wider team
2. A coach to support, work alongside and help the lead improvement group through the use of team coaching actions and behaviours, effective meetings and teaching and explaining improvement science
3. Improvement science to help guide the lead improvement group through a methodology so as to add structure and rationale that becomes replicable. Teams are guided through the improvement science so they can understand systematic problems and work in a considered way to testing change ideas through small, rapid cycles of change (PDSA)

Improving Microsystems- The Elements



Whilst it is possible for individual microsystems to work on and progress improvements without the input of a coach we believe that the MCA has overwhelmingly demonstrated that coaching offers significant advantages in terms of help, support, a methodology, rigor, pace, effective meeting organisation, the application of measurement and sustaining improvement activity.

2. What was the problem that you were seeking to address?

Sheffield is one of England's largest and culturally diverse cities, with disparate areas of wealth and poverty, with some areas having higher than average deprivation presenting challenging healthcare issues. As the city develops there is a growing need for the healthcare system to adapt to changing conditions and focus on providing value in care at the point of delivery. In order to deliver value, a product of quality divided by cost, significant cultural, leadership and organisational behavioural questions arise. Not least is the question of how to build quality improvement work in to the everyday work of the frontline units of health care so that it is seen as **'the way we do things round here'** not an additional, extra or optional aspect to work.

In considering this we saw the potential of The MCA as a mechanism to help build improvement capacity and capability in to the everyday work of frontline staff so they are equipped and enabled to undertake local improvements and redesign services around the needs of the patients they care for. To support this we also recognised that a balance has to be struck between building capability within the organisation and developing a core of expertise within the faculty to give both the course credibility but more importantly the work itself: **supporting and helping frontline teams through team coaching.**

It is worth noting that the idea for the MCA came from **small beginnings**, testing coaching and microsystem improvement with one team,

The initial scope of the work was centred on secondary care within the adult acute and Children's trusts in the city with the intention that other local healthcare providers would join as we gained confidence and momentum that this approach could work.

Culturally we anticipated the MCA could help to begin to address multiple issues. Traditionally within large healthcare organisations approaches to change are often imposed in a top-down manner and often at scale with a tendency for staff to be asked to buy-in to change without being involved in its setup or development.

The MCA is based on QI thinking and methodology that not only combines tools and skills in improvement science, the practical things that can help teams make improvements, but crucially the focus on the human dynamics of change. It is here the MCA has tried to influence perhaps the most. What we have critically set out to do is not provide a training mechanism that only teaches and equips staff with tools for improvement. The early work preceding the MCA clearly showed that ownership of the work is essential but also that staff need to learn to work together on making improvements and that this is best served when helped by coaching. We believe the element of coaching, considered help and support, is most likely to yield long term success in terms of continuous improvement.

“Improvement in healthcare is 20% technical and 80% human”

Marjorie Godfrey, MS, RN
The Dartmouth Institute for Health Policy and Clinical Practice

“If you want to make true and lasting change, ask the people who do the work how to go about it”

Daren Anderson, MD, VP/Chief Quality Officer, Community Health Centre inc.

“Every system is perfectly designed to get the results it gets”

Paul Batalden, MD Co-founder The Institute for Healthcare improvement. Founding Director,
Centre for Leadership and Improvement,
The Dartmouth Institute for Health Policy and Clinical Practice

The above quotes encapsulate what we are trying to achieve over time through the MCA.

- Turn the focus of improvement back towards the frontline and away from top-down delivery or direction.
- Encourage and foster a sense of ownership at the point of care delivery for improvement work.
- Challenge current cultural norms that continuing to approach change and improvement in the same way as before will not result in different or improved outcomes.
- Use the existing human resource, its talent and knowledge to help redesign systems and drive improvements locally in small units that ultimately make up the whole organisation.

3. What were the original aims of your project at the point of your proposal?

Our initial aim was to train **125 front line coaches** within Sheffield Teaching Hospitals (STH). This equated to the square root of the number of staff in the organisation and was developed and translated from Deming’s work on leadership. The central feature of this theory states that in order to tip the culture in an organisation to one of continuous improvement the square root of the number of people in the organisation would need to be trained in microsystem improvement.

During the set-up and early implementation stages of the MCA we have partnered with Sheffield Children’s Hospital (SCH) and they have had coaches represented on all subsequent cohorts. From cohort 2 Sheffield Health and Social Care Trust (SHSC) have joined and have trained coaches in all subsequent cohorts.

Ultimately and over time we anticipate that the MCA training and on-going benefit of coaching will contribute to improving the quality and value of healthcare in Sheffield.

Because of the very nature of these aims, the methodology and approach to delivering them the MCA was never designed with specific quality targets for frontline teams to achieve. The process teams go through is one of discovery and self-determination regarding the focus of the improvement work which means that specifically defining what those improvements in

care will look like was never indicated at the point of proposal. However learning from TDI and the early microsystem improvement work in Sheffield provided good evidence that all the quality measures, as defined by The Institute of Medicine, could be improved with this approach.



In terms of specifying the aims for the MCA it was recognised that significant changes to the way people work and the organisational culture would be required and that this would be a continual and emergent process. Teams essentially start at the point of knowing they require improvement but do not always know what improvements are required or may make assumptions about change. By engaging with microsystem improvement teams are allowed the space in which to explore how their current state system through the exploration of the 5P's allowing them a focus on which to base their 'system' diagnoses. This diagnosis allows teams to then deeply understand the causes of problems on which to base ideas to test improvements. At the point of proposal teams within all the partner organisations did not typically meet habitually to work on improvements and the culture towards change was not necessarily focused at the microsystem level with a focus on discovery before deciding on changes and solutions.

Elements such as measuring for improvement were relatively unknown concepts as were the enablement of interdisciplinary teams representative of microsystem areas coming together regularly to work on improvements. Although pockets of innovation and excellence existed with regard to this they were far from usual in the context of the wider organisations.

In terms of clinical engagement much of the early microsystem improvement work was initiated where there was clinical support and enthusiasm and a high degree of will.

Our initial strategy was to continue to **“go with the energy”** and work with those areas who wanted to try microsystem improvement. This applied to both those who wanted to train as a

coach and teams who were looking for help to improve their services. Senior leaders were engaged via the Service Improvement Director, including representation at board level, whilst the work at the frontline was predominantly coordinated through the faculty. The aim of this basic strategy was to allow the work to develop and be tested out somewhat under the radar whilst ensuring the organisation's senior leadership had awareness and supported the initiative.

In terms of learning from the early work and that of TDI the following issues were anticipated as potential areas which could hinder the work.

- Staff engagement- how would staff relate to such a new way of working?
- Ownership of the work- how would staff see that this was about them as much as their patients?
- Enablement from senior leaders for the work to be undertaken at the frontline- how would leaders view the challenge in enabling staff to undertake the work and release time?

In terms of aspects that we thought might help we saw the following as enabling factors.

- Evidence of successful implementation from elsewhere and locally- sharing stories and evidence of measurable improvements from the people who were involved.
- The rigor of a single methodology- keeping the approach simple, replicable and common throughout the organisations.

Strategically MCA leadership did not seek to provide a business case or ask for buy-in from boards to support the initiative during the set-up and early implementation stage; favouring the tactic of working from the bottom up, at the frontline where there is engagement, enthusiasm and will to try something different. As the MCA gained confidence, wider engagement and demonstrated the ability of microsystems to make improvements the partner organisations (STH, SHSCT, SCH) have incorporated the model in to their service improvement strategies to help embed a single methodology for quality improvement in to the respective organisations.

Within STH the MCA has demonstrated the capacity to income generate (e.g.through the training of coaches external to Sheffield) and is now funded centrally for the roles of MCA Manager and MCA Programme Support Officer. Within SHSC a dedicated role of Continuous Improvement Manager has been established to develop microsystem coaching and the role of Continuous Improvement Manager at SCH has similar responsibilities.

Section 2 Journey

Journey

4. What changes have you made along the way?

The basic design and methodology of the MCA has remained largely unchanged throughout the setup and implementation stages. The fundamental methodology underpinning the course structure remains true to the original but has seen developments as the faculty have become more experienced and as new learning has been uncovered.

For example over time we have structured the course in to themes and developed a visual course overview to aid planning. This allows us to build in flexibility across the 5 months in moving certain sessions if required as well as aid planning on a session by session basis. We also use the course structure to introduce new learning when available and test this out with the cohorts.

With regard to the faculty we have recognised the need to build a body of expertise in the material but more importantly the need for credibility in terms of being experienced and active coaches. This basic plan applies to all current faculty members across the partner organisations and anecdotally we receive feedback from coaches in training regarding how the material and teaching is evidently applied to real stories, examples and learning.

Over time the faculty has developed and expanded in numbers to provide resilience, adequate support to coaches in subgroups as well as professional development. This change also specifically reflects a change in the growth of improvement work at STH requiring a degree of flexibility within the faculty to respond to demand for other improvement support. It should be noted that although there are 7 faculty members currently these are not 7 full time positions with each member undertaking faculty duties in addition to their substantive roles to a lesser or greater degree.

In terms of numbers as of cohort 6 the organisations are currently represented as follows:

Organisation	Faculty Numbers
STH	5
SCH	1
SHSC	1

Our partnership with TDI has seen new learning emerge and shared and tested within the cohorts. For example the coaching skills and practice sections of the course have seen significant development in terms of how we teach the basics of team coaching and help coaches practice and test out their learning. Through the use of case studies, role play and subgroup time we have developed a range of mediums to explore this core element of the course in a meaningful way rather than through basic presentation and discussion.

Another key area of development over time in terms of the materials has been measurement for improvement where we have moved from teaching the basics of measurement to combining this with a personal quality project that all coaches undertake where they pick something within their personal life they want to improve. The basis of this is to allow the theory of measurement for improvement to be tested out in a safe and fun way.

Course Themes:



The above themes represent the core elements on which the MCA curriculum is based.

Key Concepts:

Key elements and concepts relevant and repeated throughout the course. These include quotes, elements of microsystem basics thinking, the MCA's aim, The Team Coaching Model, The Microsystem Improvement Ramp, linking knowledge to improvement and the human side of improvement.

Subgroup Learning and Support:

Each coach is formed in to a smaller subgroup for the duration of the course and allocated a subgroup lead (from the faculty) as a focus of contact and support. This support extends beyond the sessions and up to 12 months as part of the course package. During sessions subgroups have specific time, facilitated by the subgroup lead, to reflect and share learning. Subgroup time is reflected in each session and consistently evaluates well in terms of coaching development and support.

Team Coaching Skills:

Each session reflects an aspect of coaching skills from theory through to practice. This takes a variety of forms from didactic presentation through to observation of real-time coaching in the fishbowl to coaches challenging themselves through role play and practicing coaching strategies outside of the sessions.

Stories and Case Studies:

Patient stories and stories from the field from other coaches and teams form a central point during the course. Previous coaches and teams (usually from the preceding cohort) are invited back to share their learning, journey and experiences of microsystem improvement with the current cohort of coaches. In addition to this the course offers opportunity through subgroups, progress reports and the graduation event during the 'MCA Connect' to share their journey to date.

Reflective Thinking & Journaling:

All coaches are encouraged to journal and are provided with a 'learning log' template to help with this. This journal builds over time and is primarily for the coaches to document what is important to them and to visualise their coaching development. As part of the final deliverables for the course coaches are expected to complete a document to evaluate their learning. The learning log often provides the story and basis for this.

In addition to journaling coaches are given the opportunity to use a variety of reflective methods during the sessions to illustrate key concepts or topics. These range from the use of video to poetry.

Measurement:

Measurement for improvement is a core element of the MCA's philosophy. Throughout the course the technical side to improvement is explored and developed in the field of setting aims relevant to the understood problem, how to organise change ideas, measurement plans and crucially how to measure for improvement. All coaches learn how to construct measures over time and are tested on this through homework and group activities.

Quality is Personal:

This section builds on measurement and allows coaches a safe and fun environment in which to practice what they have learnt. Each coach is given the opportunity to pick an improvement aim relevant to them in their person life, set aims and begin to measure before and after a change. Q is P is represented in the later sessions of the course and prizes are offered for the most entertaining and complete projects.

Applying the Learning:

This core element really relates to active learning, taking the session learning and applying it in the field. All coaches actively coach a team whilst simultaneously undertaking the course. This element of the course is perhaps the most challenging for coaches but as they progress with the theoretical framework they also experience the complexities of applying theory to practice.

In conjunction with the core themes we have developed the faculty in term of building expertise and skill within the themes. This has allowed confidence in the material to grow as well as improve the quality of the delivery and depth of knowledge around key subject matter. As a faculty we are keen to develop and as key members have grown expertise others have shared the delivery on the course so as to build their confidence and knowledge base.

As we will discuss later in this report many changes have been made along the way to add other elements to the MCA as well as the initial 5 month coaching programme. These include

- Addition of the MCA 2 day 'Introduction to Quality Improvement' course to build leadership knowledge in QI to enable microsystem improvement from Cohort 1 onwards
- Addition of the 'MCA Connect' sessions to facilitate coach and team networking and support from cohort 1
- Addition of the 'MCA Curriculum' sessions to allow coaches and teams time for a deeper dive into QI theory and tools from cohort 2
- Extension of the subgroup support from faculty to trainee coaches from the 5 months to a year to support and nurture the new coaches from cohort 4
- Development of the website and simple 1 page books on topics such as run charts and PDSA cycles to make learning about and sharing about QI ideas and techniques simple and concise (from cohort 3)
- Addition of a 1 day course for participating microsystem teams to help coaches explain to the team what microsystem improvement entails and some of the key concepts (from cohort 3)
- Addition of a supportive collaborative for teams and coaches (Cohort 5 Ward Collaborative) to provide direct yearlong support for teams and coaches

These iterative innovations will be referenced later in the report.

In addition to the core course the actual makeup of the cohorts has seen perhaps the most significant development. SHSC Trust joined with one coach on cohort 2 which quickly developed to 2 coaches on cohort 3 and 8 on cohorts 4 and 5 as they have taken the learning and applied it to their own context with the aim of training 60 coaches in their organisation over 3 years. We also welcomed 3 coaches from the Western Health and Social Care Trust in Northern Ireland to cohort 4 and have coaches from our local Clinical Commissioning Group and Lanarkshire Scotland participating in cohort 5.

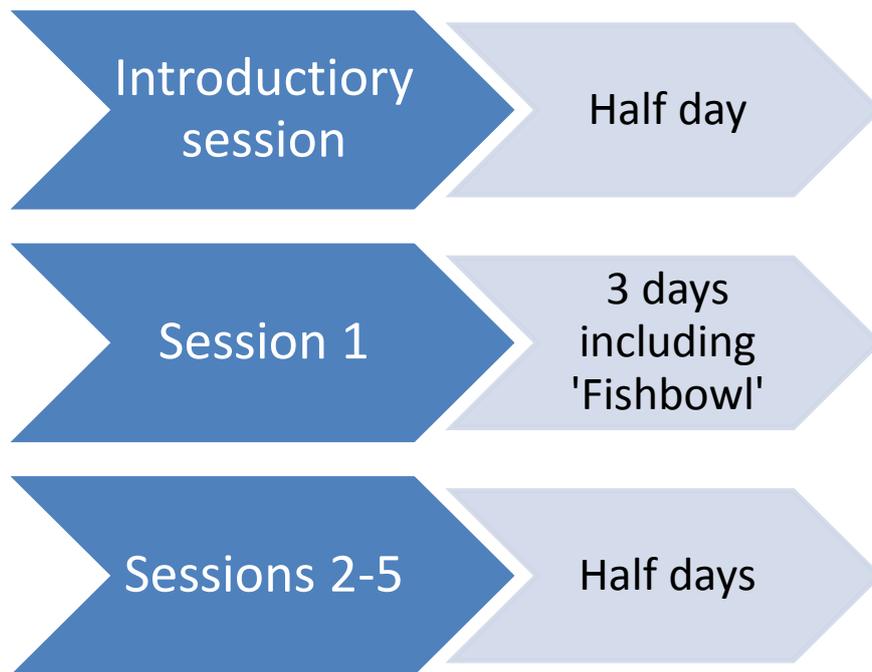
Much of this interest has been generated from passive spread and enquiries through our website and network contacts as we have been asked to participate and tell our story at conferences and events. We have embraced this development on 3 fronts:

- To encourage spread of the work we are helping develop
- To enrich the course and learn for other contexts
- To demonstrate locally the value other organisations are placing on our approach to continuous microsystem quality improvement

5. What has happened throughout the lifetime of your project?

The original course material developed by TDI is proven, tested and grounded in research. As a methodology we had a high degree of confidence that we could translate these core materials and concepts to the Sheffield context. The development of the MCA has been emergent and changes have been made iteratively from cohort 1. As the MCA has developed we have adapted an iterative approach to learning from each cohort and tested out new ideas, changes and approaches in response to outcomes, reflections and feedback from coaches and teams.

The basic structure of the course is as follows.



Introduction Session: half day covering microsystem basics, context and aims, stories from the field, subgroup time and the course timeline. In essence this is an opportunity for coaches to meet each other and their faculty subgroup lead as well as learn about the basic elements of the course, what will happen over its duration and set expectations such as course completion and homework.

Session 1: this session is covered over 3 days and comprises key concepts, pre-phase activity (how to get started and the conditions required for microsystem improvement) coaching experience and an exploration of what the 5P's are.

(Patients, Purpose, Patterns, Process, Professionals)

Day 2 is 'fishbowl day' where a microsystem lead improvement group participates in a simulation through the improvement ramp (Appendix 1 Supporting Evidence). This team is actively coached by one of the faculty throughout the day in short bursts whilst the cohort watches. The benefit of this approach is that coaches learn structure, how to conduct

effective meetings and start to see some of the coaching situations they may encounter and how an experienced coach deals with them. Although the day illustrates process it is as much about coaching skills and behaviours and how this plays out in a real team coaching setting. Over time this element of the course has been developed in terms of the experience for the coaches in training. Currently coaches have the option to watch the meetings face to face, silently via video link or live via video link in a facilitated discussion room.

Day 3 introduces measurement for improvement, good practice in QI, reflective thinking and a story from the field to compliment the fishbowl experience in terms of a story of actual microsystem improvement from a coaching, team member and patient perspective.

Sessions 2-5: build on coaching skills and practice, measurement, real life situations such as managing up communications, movement through the ramp from 5P's to standardisation and finally transition within microsystem improvement.

At the beginning of the implementation stage the original materials and core concepts from TDI were delivered by the Dartmouth Faculty and Sheffield's Lead Faculty Member to the first cohort. This training exactly mirrored that provided by TDI including a 3 day face to face session and a series of web-based video sessions (webinars) delivered directly by TDI faculty from the USA.

Cohort 2 saw the development of a wider Sheffield based faculty all of whom had been trained as part of cohort 1 and contributed to the delivery of the core materials for cohort 2. Cohort 2 was overseen and evaluated by Dartmouth's Lead Faculty member (Margie Godfrey) to ensure the quality of the taught materials, confidence in the development of the faculty and to ensure intellectual property was appropriately utilised. The mode of delivery closely matched that of cohort 1 with the 3 day face to face and webinars, apart from the last two sessions, where we tested local face to face delivery with TDI joining via adobe. At this point the Sheffield faculty consisted of 4 STH representatives and 2 from SCH.

Cohort 3 saw a significant development in how the core components of the course were delivered. Because coaches and faculty were all based in Sheffield the delivery model of face to face sessions and webinars became irrelevant. As a result cohort 3 was delivered entirely through a series of face to face sessions. In addition to this, although the core material remained intact, sessions were organised by theme in order to develop learning and reinforcement of core subject matter. (See section 4 above)

For **cohort 4** core materials were again protected but the order and flow of sessions was organised such that consideration was given to the stage coaches in training were most likely to be in with their team being reflected in the order and intensity of the taught materials. For example session 1 leaves coaches with a good overview of process as well as the core elements of coaching and coaching behaviour. This allows them to leave session 1 with the skills and knowledge to begin the pre-phase more effectively with the team. In addition the measurement and quality is personal elements were combined to create an opportunity for applied action learning for the coaches through the programme.

In addition to this **cohort 3 and 4** saw significant growth in the number of staff from SHSC

as well as 3 coaches from Northern Ireland attending. This diversity has added richness to the course in bringing different perspectives on healthcare from outside of the Sheffield setting. Cohort 4 Coach survey monkey evaluations tell us that time in subgroups exploring subject matter, experiences and coaching stories was very much valued and the knowledge that other healthcare systems are dealing with similar issues to our own seems to offer some security and sense of camaraderie.

As a faculty we saw several changes from cohort 1 to 4 in terms of numbers and composition. From the original 6 members 3 have been involved from cohort 2 to the present day. In terms of absolute numbers faculty dropped from 6 to 4 for Cohorts 2, 3 and 4. In cohort 5 we increased the faculty size back to 6 drawing from experienced coaches within STH and for cohort 6 we have now secured a member from SHSC. This is particularly important as we move forward in order to meet and effectively support the increasing demand for coaching places as well as ensure we are integrated in approach (e.g. coach selection) across all the partner organisations.

As the MCA has developed we have seen wider engagement from across the Sheffield health economy. SHSC, as previously described, have now employed a dedicated Continuous Improvement Manager with the primary role of supporting the development of microsystem improvement as their chosen improvement methodology. Initial strategy from SHSC was to rapidly train large numbers of coaches (up to 10 per cohort) with the aim of activating multiple microsystems and multiple coaches so as to accelerate spread within the organisation. From cohort 5 onwards SHSC have reduced their training numbers whilst they consider the effectiveness of their initial strategy. Having considered the learning so far it is apparent that the drive to train multiple coaches and activate multiple microsystems has worked in pockets where coaches and teams have actively sought to engage with the programme but some areas have struggled to make progress. Some coaches and teams have been nominated or volunteered to take part which has had an impact on ownership and engagement and has detracted from the usual pre-phase activity between the coach, leader and wider team. The appointment of the Continuous Improvement Manager is in part a response to this to develop a strategy for training and spread and we continue to work closely with them as an active faculty member.

For SCH they have continued to maintain a strategy of training coaches in small numbers and have been represented within each cohort to date. Supported by a Continuous Improvement Manager (also a faculty member) SCH has engaged the board successfully in reporting progress and development of microsystem improvement through coaches and teams telling their story to the board. This forum has helped maintain a focus on improvement work whilst the trust undergoes considerable large scale change such as a major capital rebuild.

Within STH the role of the MCA and the wider Service Improvement Team has expanded over time with an increase in the size of the Service improvement Team employing additional Improvement Facilitators (IF's). All IF's undergo MCA training and use microsystem improvement regularly as a core element of their work and this is directly linked to a trust wide desire to build internal capability and reduce the requirement for external consultation. The term 'MCA' is now commonplace within the organisation and increasingly we are seeing reference to the MCA and improvement work in general in the language and communication from the top of the organisation as well as at the front line. Branding is strong

and consistent within the MCA and anecdotally seems to be well recognised.

As with our other partners STH has examples of strong successes and areas where the work has been more challenging. Overall however all partners have over time developed culturally towards the goal of tipping the culture to one of continuous improvement and all 3 partners are committed to continuing the journey. As we have now trained 3 primary care coaches we hope one of our next stages will be to engage primary care more widely so they ultimately become full partners.

6. Who was involved in the project and how were those relationships managed?

The MCA started with a key relationship with TDI and specifically Marjorie Godfrey as their Lead Faculty member and the person instrumental in designing and developing the original programme in the USA. As the idea for the MCA developed TDI were very much engaged with plans and in particular how we would contextualise their **eCoach the Coach course** locally. Throughout the development and set up stages of the project TDI were involved with curriculum development, leadership engagement and faculty development. TDI have remained fully connected to the work of the MCA and continue to help development through a bi-directional relationship. The MCA fully recognises and respects the relationship we have with TDI and always references and attributes original work to them. All teaching materials consistently bear TDI branding alongside that of the MCA and we continue to share our progress, development and new ideas openly with Dartmouth.

As the project developed a senior Executive Group was established including from STH the Lead faculty Member for the MCA, the Service Improvement Director, Chief Nurse and Clinical Lead for Quality. From the Children's Hospital the Head of HR and Organisational Development were represented on this group. Each of these individuals had influence and representation at various key levels within the respective trusts, including at board level.

In initiating the project much of the operational and strategic planning was conducted from within the Service Improvement Team led by the Service Improvement Director. Initial thinking and set up was led by a small group including the Lead Faculty Member, Clinical Lead for Quality Improvement and the Project Lead.

An established and binding contract was agreed with TDI to ensure intellectual property was respected and represented as well as valuing the learning and experience gained by studying the American model. Although the project was specifically led by STH our partner organisation, SCH, was involved at all stages of development. In particular their representation at faculty level has been consistent from planning through to implementation and beyond.

Throughout the lifetime of the MCA all partners have been involved and connected through a series of regular meetings. The Executive Group meets quarterly and the Chief Nurse provides an effective link to the board in terms of managing information up as well as providing insight in to thinking at board level.

Operationally the MCA Project Lead, faculty and Clinical lead for QI meet weekly to discuss operational matters relating to the MCA and its development. The faculty also meet

fortnightly to develop and discuss aspects directly related to the delivery of the course and development of course materials as well as faculty development.

As with much of the MCA this is emergent in terms of finding the most effective way to organise ourselves operationally but the regularity and pace of the meetings has been key in maintaining momentum, enthusiasm and motivation and we continue to adapt as we move through the cohorts and new faculty members join.

We maintain a network list of all people who have been in contact with the MCA either as a coach, microsystem team member or otherwise. This network is growing and we ensure events (MCA Connect), additional teaching sessions (MCA Curriculum), resources and newsletters are available to them as well as maintaining a current and up to date website. Of key importance in maintaining strong relationships throughout the organisations has been openness and 'all-comers' attitude to involvement and engagement with us. We have found this particularly helpful in making it easy for past coaches to stay connected to the MCA which has in turn generated additional microsystems and coaches. For example a coach from cohort 4 has successfully generated interest within his own department to the extent that 2 additional teams have asked for coaching support and a further coach is training within cohort 5.

Section 3 **Impact**

Impact

7. What has your project delivered- what difference has it made and in what ways?

Many teams have been able to demonstrate measurable improvements including reductions in waiting in outpatient settings, increased theatre productivity and efficiency, changes in quality of care resulting in open access services complimenting booked services, reduction in 'do not attends' and release in resource through redesigning systems to release nursing time. These improvements are often represented on the MCA's website and a number of events are held where teams and coaches can share their experience, improvements and learning.

In additional to specifically measured improvement teams have reported better working relationships and many trained coaches return to their usual working environment and utilise their coaching skills and knowledge of improvement science to help support change and improvements in their own areas.

The Metabolic Bone Unit in Sheffield started their improvement work supported by a coach from cohort 3. To date they have made measurable improvements by increasing patient throughput for bone density scanning and reducing access times within their current resource. The team report better working relationships, enhanced teamwork and have linked their focus for improvement work on the Trust's PROUD values; patients first, respect, ownership, unity, delivery.

A specific achievement for the MCA has been the development of additional training materials such as one page booklets on key themes from the course such as measurement for improvement and Team Coaching. A QI Curriculum has been developed to attract other interested people from within the organisations as well as help and continue to engage existing coaches. These hour-long lunchtime sessions are open to all and cover a variety of improvement related topics as well as refreshers on core aspects from the course. A regular networking event called MCA Connect has been established where coaches, team members and other interested parties can share learning, stories, learn further about improvement and help build an improvement community. (A summary of the full list and breadth of additional materials and sessions developed can be found within the attached supporting evidence in appendix1).

MCA Results – an overview

The following table documents the total number of coaches trained through to cohort 5, the number of microsystem teams coached which includes coaches who have worked with more than 1 team, the number of people who have accessed additional training delivered as part of the MCA and our website hit-rate to cohort 5.

Number of Coaches Trained (Cohorts 1-5)	116
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Microsystem Teams Coached	131
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Coaches still coaching	73 (63%)
2 Day QI Course Attendees	491
1 day QI Course Attendees	128
Website Hits	14,564

Cohort Breakdown Including Cohort 5

The following table documents by organisation the number of coaches trained in each subsequent cohort, how many completed training and the number who remain active with their coaching.

Cohort	Coaches	Number of Coaches Completed Training	Number of Coaches still Coaching
STH			
1	22	21	11
2	15	14	3
3	9	8	6
4	9	8	7
5	11	10	10
SCH			
1	6	6	2
2	3	3	2
3	4	3	3
4	2	2	2
5	3	3	3
SHSC			
2	1	1	1
3	2	2	2
4	8	5	5
5	8	7	5
Externals			
2	1	1	1
3	1	1	1
4	3	3	3
5	8	6	6
Totals	116	101	73

The following table demonstrates the overall number of coaches who remain active across all the organisations as a percentage of those completing training.

Cohort	Active Coaches (% of completed training)
1	48%
2	37%
3	86%
4	94%
5	92%

The following table represents the number of coaches who remain active by organisation as a percentage of those completing training.

Organisation	Cohort	Active Coaches (% of completed training)
STH	1	52%
	2	21%
	3	75%
	4	87.5%
	5	100%
SCH	1	33%
	2	67%
	3	100%
	4	100%
	5	100%
SHSC	2	100%
	3	100%
	4	100%
	5	71%
External	2	100%
	3	100%
	4	100%
	5	100%

As the course has developed we have recognised that team members as well as coaches require support and education. In addition to the above a 1 day QI course has been established for staff who are to be part of a lead improvement group to learn more about QI and the microsystem improvement approach before they start to work together. This approach is at present a test and the full benefit is still to be evaluated but we recognise the challenge coaches in training have in explaining the rationale of microsystem improvement to teams and we see this tactic as a potential helpful and enabling factor for success.

As more people become aware of the philosophy underpinning the work of the MCA we are starting to see changes in the way people view improvement from very localised use of the term 'microsystems' and the connection with understanding the causes of problems, small scale testing and the use of measurement to demonstrate change. For example the use of time series data is increasingly commonplace within all partner organisations as is the adoption of effective meeting skills in meetings not connected directly to improvement work.

As a concept coaching is gaining traction and appears to be seen as something valuable and necessary for organisational development. In addition to team coaching STH is for example training leaders as one to one coaches throughout its departmental structures.

8. What outcomes have you seen, including any wider evidence of impact?

The MCA, as a subset of the wider SI team, could in itself be seen as a corporate service in that we support a wide level of clinical and supporting microsystems and capability training. Although we have no jurisdiction over any clinical process or outcome we do have influence and have developed a high level of expertise within the faculty. Over the course of our development we have seen levels of engagement with improvement work grow as well as greater understanding of QI. The MCA has adapted but has remained resolute in staying true to the core materials and methodology. Our approach to teaching and practice in promoting a consistent single methodology has been shown to benefit organisations in terms of developing understanding and allowing for better spread of the work. Crucially the MCA has always maintained within the faculty that all members remain active coaches so as to be able to accurately relate theory to practice but more importantly develop strong credibility and knowledge.

The terms '**microsystem and MCA**' are now becoming commonplace within the organisations and as such there is a corporate branding. We believe microsystem improvement is well aligned with all partner organisations' strategies in particular through our adoption of the IOM's domains of quality. Although microsystem improvement is not predefined we argue it is difficult to counter against any team working towards improving, efficiency, equity, patient centeredness, timeliness, safety or effectiveness.

Ultimately the people we serve, patients, benefit through services understanding their problems and redesigning their systems. Through the process of coaching and meeting regularly team members that work with each other learn how to work together in terms of progressing improvement through collaboration and multidisciplinary involvement.

Patients have benefited in multiple ways such as reduced waits within outpatient settings, additional cases on theatre lists, and reductions in DNA rates resulting in more timely care, better organised environments, better organisation of human resource and a host of other minor, modest and major improvements. Most importantly where teams have been successful there is a shared sense of ownership built which ultimately translates to care. In a sense where staff are able to work on broken systems, coming to their own solutions they are more likely to improve their working environment which in turn translates to better care.

'Happy staff = better care'

As the MCA has developed we have seen multiple clinical and support areas come forward asking for help. Prior to the MCA teams would either work in isolation without a method and unsupported from outside of their own system. What the MCA has helped enable is a focus where teams or individuals can come and ask for help. As we have become more sophisticated in our knowledge and understanding of microsystem improvement we have been better equipped to understand what help is being asked for and describe what the MCA can support. This honesty is respected by frontline staff, clinicians and managers alike helping further engagement and building credibility.

Culturally we are noticing significant changes in how STH is approaching change. The MCA has been invited to run a Leadership Forum event for senior leaders in the organisation offering our approach to change, developments planned (such as the Flow Programme) and allowing the opportunity to discuss the concept of devolved leadership. The chief executive for STH, Sir Andrew Cash, commented at the end of this event the opportunity to use the MCA and wider service improvement team as a resource and urged leaders to:

“put the MCA front and centre of your thinking”

Within the trust we are also witnessing a greater willingness to adopt a more ‘experimental mind-set’ with the introduction of initiatives such as ‘Listening in to Action’ aiming to support teams to work on a programme of improvement over a 20 week period involving multiple staff from across a work area. Smaller scale testing has been encouraged through other initiatives such as ‘Give it a go Week’ where teams have been encouraged to work on a small change and measure the impact. Interestingly many of the teams and areas engaging in these initiatives have either previously been or remain actively supported through the MCA or service improvement team.

The MCA itself has also witnessed significant change in terms of confidence to innovate and support improvement through greater collaboration. A ward collaborative has allowed staff from 5 ward areas to come to 4 learning events over a year whilst being supported through microsystem coaching. Evidence to date suggests that this approach and shared learning has helped to moderately accelerate improvement progress and shared learning. A second collaborative has recently started, supported by cohort 6 coaches, focusing on outpatient areas.

Although by no means comprehensive the following outlines some of the measurable improvements teams have made.

Anticoagulation Services	<p>Achieved a 50% reduction in nursing overtime.</p> <p>Reduced the average number of interruptions in the ‘dosing’ room from 33 to 12 resulting in more timely appointments and improved safety.</p>
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Antenatal Services	<p>Improved services for women attending their first antenatal scan and appointment by reducing waiting in clinic by 24%. Waiting times also became more predictable at around 25 minutes.</p> <p>Reduced the time spent with the midwife by 50% to be reliably 15 minutes or less.</p>
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Pituitary Neuro- Theatres	<p>Improved list start times by an average of 14 minutes per patient.</p> <p>Improved theatre finish times by an average of 45 minutes per patient.</p> <p>Above improvements resulted in the team being able to safely add an additional patient to the list.</p>
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Children's Cerebral Palsy Botox Service	<p>Increased the rate that children received physiotherapy following Botox surgery from 52% to 92%.</p>
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Hearing Services	<p>Reduced patient waits for a booked repair appointment from an average of 3 weeks to below 2 days.</p> <p>The percentage of patients seen for a booked appointment in 48 hours or less increased from 19.5% to 77%</p>
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Respiratory Wards	<p>Multiple small improvements made such as the introduction of board rounds, whiteboards, drug rounds efficiency and effective handovers.</p> <p>Over time system level improvements appear to be happening across several wards working to the same standards with a 1 day reduction in average length</p>
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	of stay and a reduction in mortality to below the Hospital Standard Mortality Rate showing in the data.
Infectious Diseases Hepatitis Service	Reduced their DNA rate from 55% to 32%.
Community Stroke	A microsystem project in Community Stroke has led to a 44% reduction in average waiting times for Physiotherapy.
Ear Nose & Throat Outpatients	By looking at re-scheduling in Pre-op and ENT a total of 31 more assessments were made available to patients
Cataract Team	The cataract team have improved their patient pathway. Patients now spend around 80 minutes at hospital through the new process, a reduction of 50% on the previous process.
Orthopaedic Theatres	The Orthopaedic theatre team made a 33% increase in throughput on a hip & knee replacement list. Four Hip or Knee replacement operations now regularly take place on this list; before the norm was three.
Geriatric Stroke Medicine	The Geriatric and Stroke Medicine team looked at their E-discharge process and by introducing a reminder they have reduced average time that its completed from 47 hours to 39.

More details and other case studies can be found on the MCA website at <http://www.sheffieldmca.org.uk/stories>

9. How did you measure and evaluate the impact and outcomes of your project?

Over time the MCA has collected data on a number of key metrics associated with the academy.

- The number of coaches trained.
- Coach composition by role, organisation and cohort.
- Microsystems coached by number, location, organisation and care grouping.
- Emergent improvement theme of the microsystem
- Post session surveys
- Completion of coaching survey regarding learning and experience post completion of the course.
- Stories including coaching experience for the coach, the team and including any measurable change whether improvement or otherwise

Much of the detail of what we have collected has inevitably been qualitative in nature and forms the basis of this report and the formal evaluation of the MCA. This has included interviews with coaches, faculty and review of case studies. In addition to this some members of the wider SI team have concentrated their masters programme studies on the MCA or coaching which has contributed to the depth of data we have gathered particularly in terms of learning about the conditions more likely to result in successful microsystem improvement.

Data collection challenges:

A challenge for the MCA has been capturing the impact of the multiple improvement initiatives facilitated by MCA coaches. Because the local teams own the process of choosing what they improve and what they measure capturing the diversity and impact has been difficult, and resulted in the MCA favouring the case study approach in highlighting impact. However these case studies do not show the full range of improvement work undertaken. There have been notable examples where MCA coaches have initiated new improvement work across the organisation without the knowledge of the MCA, so it has been an ongoing struggle to keep abreast of the status of all the improvement work MCA coaches and teams are undertaking. The MCA, whilst holding an interest in improvement work undertaken through team coaching, doesn't seek to monitor or control the individual pieces of work in any way. Central to our philosophy is ownership of the work by the frontline teams, supported by a coach. We continue to encourage teams and coaches to take ownership and are currently reviewing a standard template for teams to use to tell their stories. A selection of submitted case studies is freely available on our website.

Project versus continuous improvement:

Because the MCA is not a project in the traditional sense of a definite defined outcome delivered within a specific timeframe and then closed on completion. We haven't specifically set out to measure milestones or delivery targets and haven't defined an end point or finish. The process has of course had set points such as cohort dates but this has been a learning

process which we have iterated as time has progressed. We have used some time series data to plot coach numbers over time as well as course evaluations. Because of the subjective nature of evaluations it is difficult to make comparisons outside of specific cohorts but they have proved useful in reflecting on individual sessions allowing us to adapt for the future. To this extent the qualitative measures are the most powerful and meaningful in our context.

Knowledge and skills development:

From cohort 6 we are now collecting pre and post course analysis of coaching and technical capability of the coaches. Using a tested format we now ask coaches their perceived level of knowledge and skill around key elements of QI thinking, coaching theory and technical application of QI tools. Following the completion of the course coaches will be asked to repeat the assessment hopefully helping identify where coaches might need to focus efforts on as well as providing valuable feedback to the MCA about our effectiveness in delivering the core aspects of the course.

For the ward and outpatient collaboratives there is an evaluation framework where specific learning is being captured at each of the 4 learning events across the year. Teams are encouraged to document and feedback at these sessions with progress updates, what is going well for them and what they are learning that might inform their ongoing planning. The following simple template is used consistently so as to provide a tool to aid knowledge capture and also help the MCA collate themes.

Ward

What progress have you made since the last session?	What's going well?
What are your challenges?	What are your plans and next steps?

Specific time is also built in to these sessions for team planning time as well as collaborative learning experiences such as stories from the field and measurement for improvement. Throughout the process teams are encouraged to share ideas, test and learn from each other.

Both the pre and post quality improvement knowledge questionnaires and the ward collaborative are yet to be evaluated.

10. What has your project added to the discussion or evidence base for corporate and clinical teams working together in improvement?

Throughout the course of the MCA so far we have learnt some key messages in terms of the importance of pre-work in helping understand the conditions required for improvement including the role of leaders, the ability to meet regularly and the necessity to build basic QI capability both within front line staff and leaders.

Of key importance is the learning around how hard it can be to sustain coaching in clinical environments. In terms of aligning clinical and corporate functions the role of leadership has proven incredibly important in supporting improvement work and displaying behaviours which demonstrate that QI is an integral part of everyone's role. Where clinical teams feel supported and encouraged to undertake improvement work we have seen greater growth in terms of sustained microsystem improvement as well as the generation of new work and spread to related areas. In particular where a leadership role links and supports a dedicated resource, i.e. someone with dedicated time, the spread of improvement activity appears to be more effective. Where we have this linkage the MCA has been able to develop strong relationships with key areas which in turn helps with the will to improve in terms of team's engagement and sustainability. As an example we have seen areas where managers have been involved within the work of a specific microsystem flourish in part due to this involvement and support. The role of leaders in enabling and endorsing improvement work is extremely important in sustaining improvement.

Within STH the Anticoagulation Department is a prime example where well led and well supported improvement work has continued beyond coach transition. Interestingly as leaders move within the organisation their involvement in previous improvement work shows in their support for microsystem activation in other areas. Whilst we remain convinced that teams must take ownership for the work, and our best chance of helping successfully is to 'go with the energy', we do recognise that leaders have an increasing role where they have previously been involved. Throughout all partner organisations we are seeing leaders as crucial partners in both identifying potential teams but also sharing their experience and support as a mechanism for engaging frontline staff.

Further examples exist where corporate functions have helped align with clinical services. The Medical Physics Department at STH support a variety of clinical areas with technical expertise as well as specialist maintenance and repair functions and has an engaged leader who supports microsystem improvement as well as one trained coach. Following a successful experience as a coach a further 3 microsystems have been generated in the clinical setting through contact with this coach. Although not directly involved in the clinical workings of these teams, or as an active member, this coach has successfully introduced the concept, kept good connections with the MCA faculty and successfully described the potential benefits so as to engage the leadership of these teams.

Through our approach to building improvement at the front line we have sometimes struggled to align with strategic direction. Where strong leadership, engagement and the will to enable improvement work to happen exists from leaders we believe we have started to see a more integrated approach to improvement. Many leaders are now recognising that

whilst there are strategic and organisational priorities to meet improvement work is often essential and necessary to support this, both in terms of teams understanding problems and issues but in the application and willingness to embrace change in a collaborative manner.

Section 4 **Learning and Challenges**

Learning and challenges

11. What have you learned throughout your project?

Although it sounds obvious a major learning point both through the setup and implementation phases is that improvement work is not easy. During these stages we have faced major challenges in:

- Understanding and knowledge of QI
- Expectations of leaders, coaches and microsystem members
- The conditions required for the MCA itself to be successful
- The conditions for successful coaching, microsystems themselves and the wider organisation.

Our original aim of training 125 improvement coaches in 3 years, although ambitious, seemed a reasonable one at the outset. However, although 84 coaches have been trained in cohorts 1 to 4 not all remain actively coaching. There are a number of reasons emerging from our learning why this is the case that others reading this report should be aware of.

Within this there are many cultural, individual, team, organisational and MCA specific reasons contributing to an overall picture of learning. Because of this complexity our learning to date and the challenges that have contributed to this can be summarised under the following headings.

- Conditions required for a successful MCA
- Conditions for successful coaching
- Conditions required for successful microsystems
- Conditions required for organisational enablement

Conditions required for a successful MCA

The MCA itself is not either a physical entity or a large team of individuals. During the setup phase the core faculty was developed out of participants undertaking cohort 1 plus the lead faculty member who had previously been trained directly through eCoach the Coach at TDI. In addition to this the MCA was sponsored and actively supported in its development by the Service Improvement Director and Clinical Lead for Quality Improvement. The combination of executive leadership support, clinical credibility and QI expertise all contributed to the success of developing the MCA as the mechanism whereby QI training and capability building could be approached. Although primarily funded through the Shared Purpose grant some resource was given to the Service Improvement Department within the acute trust to help establish the MCA.

Along with this Executive leadership support and endorsement was given by the Finance Director and Chief Nurse for the Service Improvement Director to lead the MCA's development. During the setup phase SCH were actively involved providing the same executive leadership through the HR Director and enabling time and resource for 2 faculty members. Without enabling leadership across both organisations it is unlikely that the setup phase would have been as successful. In particular the grant itself allowed the MCA to develop rather than be directed whilst retaining sponsorship at a senior level. We strongly believe the ability to test, make mistakes and develop through learning is preferential to

defining a strategic plan with predefined outcomes. Although we clearly set aims we started small and grew iteratively in relation to those aims and were prepared to shift if required. Our recommendation for others would be to ensure flexibility and a high degree of autonomy.

Within the faculty itself we knew and were aware that the ability to learn, adapt and innovate would be essential. The majority of the faculty (5 out of 6 people) were trained as part of cohort 1 with the expectation that they would be involved in delivery of the course materials, supported by the lead faculty member and TDI, for cohort 2.

The learning curve for the faculty was huge during the first 6 months and the support to their training and development was crucial. The majority had the opportunity to experience the 3 day face to face session of eCoach the Coach in the USA before experiencing this as an active coach in training within the UK context in Sheffield. This allowed for a contextual comparison and to view the training objectively as both an observer and trainee as well as experiential learning as a coach. Over time we have learnt that being an active practitioner in team coaching not only hones skills and confidence but provides credibility to the training and richness to the learning through experience and exposure to the complexities of improvement work.

For anyone considering a similar approach we would strongly recommend first training as a coach with the MCA to both experience and become immersed in the theory but more importantly to experience and learn about the practicalities of team coaching and microsystem improvement as it relates to local context. We would strongly advise that in order to teach microsystem improvement faculty members should also be active practitioners to maintain competency and credibility as well as be able to critically begin to understand and make judgements about how such an approach might look locally.

Overall throughout this process we learnt that a high level of support both locally and organisationally coupled with effective and planned development and training helps foster a sense of shared vision amongst the faculty as well as developing a deeper understanding of QI and microsystem improvement. In support of this a tried, tested and evaluated methodology and training material resource was also found to provide consistency and help build confidence amongst the faculty. Crucially dedicated faculty time for further training, development of individual needs and allowing learning to flourish have all been essential to the initial success of the MCA faculty. All partner organisations have responded to this by enabling time and space in which to do this. Within this team certain members have naturally been aligned to some of the core themes (e.g. measurement for improvement) and the faculty has played to individual's strengths so as to develop expertise and confidence in the core materials. We have deliberately developed certain topic areas such as measurement and coaching skills and practice with individual faculty members taking the lead and consistently delivering these sessions in practice. However we are mindful of developing flexibility and professional development within the faculty and we are now expanding and mixing teaching delivery. The expertise we have within the faculty provides a robust safety net within this as others learn the core materials of the course.

The need to be responsive and sensitive to the local context has been a theme throughout the development of the MCA. Although there was security in the original materials and mode of delivery we knew we would have to adapt and localise to our own context. The TDI operates nationally across the USA and therefore has to innovate in how it delivers part of its

training resulting in a 3 day face to face session and a series of video conferenced webinars. This was replicated in Sheffield for cohort 1 and adapted for cohort 2 due to feedback received from coaches, faculty evaluation and after action reviews. We learnt quickly that the needs of our customers, in this case coaches, needed to be recognised and partway through cohort 2 we decided to test out face to face sessions for the final 2 half day sessions. The resultant feedback we received was that learning was improved and coaches gained value by physically having the faculty in the same location as well as the opportunity to interact with their peers face to face.

As well as the human elements there have been practical considerations to our learning that have helped develop the MCA. Due to the multi-organisation partnership arrangement we were faced with challenges in how we store, share and collaborate on core materials outside of faculty meetings. To overcome this we developed both a shared space for core teaching materials accessible by both STH and SCH faculty and built this in to the faculty's everyday working patterns. The natural development of this was a website to enhance the accessibility and reflect the multi-organisational makeup of the coaches in training. Because of the innovative nature of the training, materials and supporting information soon became high in demand from coaches and the development of a dedicated website became our way of sharing information, details of up and coming training as well as a depository for learning resources. In developing the website we also saw an opportunity to simplify the exchange of information between coaches and faculty and each coach was subsequently given access to a protected area on the site specific to their cohort. This allowed for homework submission as well as faculty feedback. An unintended consequence of the website development was the impact the public facing side has had in generating external interest (please see section 12)

Conditions for successful coaching

Without coaches the MCA does not have a purpose. Coach selection during the first cohort was by way of personal interest and enthusiasm or in some cases nomination from a senior manager. Although crude in terms of recruitment this provided us with the opportunity to learn about who may be more successful in their coaching and therefore what attributes we should be looking for in future coaches. Although the training is enriched through variation in the professional makeup of the cohorts we have developed our mechanisms for coach selection and now apply these consistently across our recruitment processes through from initial application to informal interview.

The level of seniority can have an impact on coach development. Very often we have found senior leaders or clinicians struggle more to initiate contact with a frontline team and find the time and space to participate in the meetings. In relation to time restrictions we suspect much of the difficulty some senior figures experience is due to a lack of attention, or inability to meet the demands, of the pre-phase. The team coaching model clearly advocates coach time spent on the pre-phase as a mechanism for helping the microsystem set up for success. Where coaches fail to do this the resultant outcomes of the coaching relationship are often poorer than in microsystems where coaches have had the ability to build relationships with the team, set expectations and learn from local context. Anecdotally more senior staff seem to request the help of faculty in either co-coaching or attendance at early meetings, perhaps indicating a level of anxiety regarding the perceived relationship between professional and team. Moreover we find that coaches who have the capacity in terms of

time or flexibility to coach have more success in their coaching. For example frontline nurses have found it difficult to release time to coach whereas therapists and junior managers have a degree of flexibility within their jobs that allows them to find the required time.

For organisations wishing to train coaches we would recommend careful consideration as to the range of people who train so as to reflect the wider organisation. In addition to frontline staff organisations might want to consider the role of leaders, clinicians, service improvement staff and managers. Microsystem improvement is very much defined and enriched by different perspectives within teams and we believe this range is an important consideration within the course as well.

Critically we have found those coaches who can find the time and have the inclination to immerse themselves in the core materials and learning as well as invest in building relationships with the team have better coaching experiences and teams often progress more meaningfully to measurable and sustained improvements. It has been no surprise that coaches with dedicated service improvement time built into their role have more likely to sustain their coaching activity and achieve quality improvements with multiple teams.

Of key learning with regard to coaches has been the choice of microsystem to coach. The TDI strongly advocates coaches do not coach in their own area. This is particularly important where the coach is in a position of power or perceived power as a clinician or manager. Over the course of 5 cohorts we have had experience of this and our learning concurs with that of TDI. Not only does it appear that teams find it difficult to relate to the coach as anyone other than their professional role the coach crucially has difficulty separating the openness and enquiring nature of coaching from that of being heavily immersed in the microsystem either operationally, managerially or clinically. Although we would not seek to prescribe this we would strongly recommend coaches carefully consider who they coach. As an illustration a senior nurse from cohort 4 who had overarching managerial responsibility for a number of theatre and critical care areas reported great difficulty in managing coaching and the 'day job' whilst coaching a theatre recover area.

“It was really difficult to separate trying to coach this team from participating and influencing in terms of my operational knowledge. I think the team found the difference hard as well”

Nurse Director

As the MCA has developed we have extended and diversified the type and amount of supportive training and materials on offer to coaches and those interested in improvement. With some coaches it would appear that the mechanisms available to network with others and develop learning are important factors in maintaining interest and confidence to continue coaching. It is noticeable that coaches who have continued to coach a second team or those who have been active in identifying other interested microsystems are regular attenders at learning sessions and networking events outside of the core course.

The MCA has also introduced in cohort 5 a supportive collaborative for the coaches and teams. Yet to be evaluated in terms of success, the Ward Collaborative aims to provide support for trainee coaches and develop teams in QI capability whilst providing a forum for learning and sharing.

Conditions for successful microsystems

One of the key requirements for successful microsystems is the ability to meet regularly. Those teams that meet infrequently or with little consistency in membership or process have the least likelihood of progressing to measurable improvement or building improvement capability.

Primarily the release of time for teams to meet and work on improvement appears to be one of the main reasons why teams fail to gather and maintain momentum. Where teams meet regularly, typically weekly for an hour, and keep at an appropriate pace through the improvement ramp they build confidence to test changes, gain improvement knowledge and more importantly the improvement meeting and basic QI thinking can start to become normalised into the everyday working of the team.

“it’s just part of what we do now”

Senior Sister Metabolic Bone Department

These issues are complex and can broadly be categorised as ownership of the work and enablement. Where teams present with an open mindedness towards the methodology and a willingness to understand that the problems and issues facing them need to be understood before solutions are put in place, generally have longevity and make multiple sustainable improvements. Such teams often operate already with a level of flattened hierarchy or developed multidisciplinary working which we have noted helps in reaching democratic decisions. This flattened hierarchy in turn allows all voices and a range of perspectives within the team to be heard which helps to develop a sense of shared ownership of the work. Where teams take ownership they appear less likely to feel the need to ask for permission to undertake the work and are more receptive to testing changes. In turn the confidence gained through multiple small tests of change would appear to strengthen team’s commitment to maintaining momentum. It is for these reasons that we would strongly recommend others try to identify where there is natural enthusiasm and will across professional groups and teams to undertake improvement work.

In conjunction with ownership of the work is the role of the coach. As coaches develop there is a balance to be struck between coaching, learning and doing. Where teams are less likely to take ownership for their own problems we notice coaches find it difficult to encourage this or find ways to challenge thinking. The result is often coaches naturally feeling a sense of needing to help teams in the collection of data and its analysis. Whilst this is an important part of learning it is noticeable that where coaches are unable to find the right balance teams quickly become dependent on the coach as a ‘doer’ rather than a helper. In such cases transition away from the microsystem by the coach often results in a collapse of the regular meeting.

Our observations would suggest that team enablement plays a significant part in militating against this. By enablement we mean **what is it that leaders at all levels need to do and allow to happen for successful microsystem improvement to flourish?** Our 2 day QI course has been trying to develop QI capability to help leaders be prepared and have knowledge to help with this challenge. Whilst there is no single answer to this question we have learnt some key points.

- Discussions need to happen with the right people at the right level in the right way at the right time E.g. the interface between the frontline staff and the immediate manager or leader is often lacking resulting in meetings commencing without all participants aware of why they are there or attending of their own free will.
- Contextually, consideration of who is best placed to have the discussions, and where, are important considerations at the pre-phase. Over time the faculty have begun to offer help here to support these discussions where appropriate e.g. supporting an open meeting with staff. Coaches and teams seem to value the input of an experienced and credible coach in offering a depth of explanation and understanding of the subject matter.
- Time to meet is crucial. Culturally many leaders feel pressurised in to asking for change quickly, at scale and for it to be facilitated from outside the primary team. We know microsystem improvement takes time, typically up to 6 months or more to a first measurable improvement and 12 to 18 months before coaches can begin to transition away. Without a basic level of QI understanding some managers find the concept of these time scales unpalatable. Although difficult, the MCA has learnt that where this is the case, along with a full consideration of the help being requested, it is sometimes necessary to advise against commencing microsystem improvement.

As the MCA has been an emergent project we have iterated developments over time. During the setup stages we followed TDI's delivery model and quickly learnt during implementation that there were local contextual reasons why we should adapt and reorganise the mode of delivery of the taught sessions as well as the course structure on a session by session basis. In addition to this during the implementation stage we quickly learnt that the wider offer from the MCA needed to be adaptable to the local conditions and cover a range of options to make materials and exposure to the ethos of the approach more accessible to more people. This resulted in the development of a 1 day quality improvement course for microsystem team members to learn some of the QI basics before they were coached, a QI curriculum of one hour lunchtime teaching sessions on key concepts and elements of the course as well as our MCA Connect networking event.

Of key learning have been the conditions required for successful improvement work to happen:

- Time to meet
- Enablement by a leader who has some knowledge and enthusiasm for quality improvement
- The support of a coach
- A consistent method
- Multidisciplinary input
- Effective meeting skills
- Communication with the wider team
- Rhythm and pace- the regularity of meeting and progress

Culturally many partner organisations have a tradition of implementing change at scale without knowing if it has resulted in improvement and resulting in buy-in rather than ownership from frontline staff or a lack of engagement. The MCA has seen the best

examples of success locally where teams have approached improvement from a position of starting small and discovering how to improve their services through an understanding of their problems, the causes of system failures and learning from small scale testing.

Antenatal Services commenced their improvement journey following an idea the Matron had of bringing the staff together to brainstorm areas where they could make changes to improve the service. On hearing about coaching and microsystem improvement a coach was invited to an open meeting and the team decided that they would like some help in progressing their ideas. By engaging with coaching the team began to collectively understand their system and the causes of problems and were eventually, through a process of testing, able to find solutions and improve patient care by reducing waiting and time in the department.

Conditions required for organisational enablement

As described above enablement for microsystem improvement work to happen is essential. Teams need time to meet, to learn how to meet and value has to be placed on the work and the reason for it.

Senior executive ownership is essential and has proved a valuable link to the thinking and strategic direction of the Trust Board. As an active member of the MCA Executive Group the Chief Nurse takes this lead and provides a helpful linkage. Closer to the work we have found that often senior managers are supportive of the improvement work but have a low understanding of QI in general. The same is true of middle managers who are often extremely close to the work of microsystems but are often the ones most operationally challenged. As described previously it is often this group where we are now learning that need attention in terms of training and understanding about QI but more importantly in managing expectations. Because of the operation pressures this particular group find themselves immersed in many desire quick fixes or a time limited approach to resolve a particular issue. The 2 day introduction to QI course referenced before has been effective in reaching some of this group as has the involvement of others in active microsystem meetings.

12. What were the unintended consequences and side effects of your project?

The MCA started as a 5 month training course offering extended faculty support for coaches for up to 12 months. At the outset our aim was very clearly to improve the quality and value of healthcare in Sheffield.

The largest unintended consequence for the MCA has been the ability of coaches to effectively transition away from their first team and coach a second. Within the Team Coaching Model transition is a fundamental stage which includes celebration of achievements, reflection on learning, reenergising for the next stage of improvement and ultimately the coach gradually withdrawing away from the team in terms of coaching support. As teams begin to learn how to undertake improvements independently the coaching intensity lessens and theoretically this allows the coach to begin working with a new team as their first continues on their improvement journey.

In reality some coaches and teams have a different experience. Although there is a defined methodology many coaches struggle with the teaching element required when coaching. As coaches learn through the training programme they are effectively only one step ahead of the team members in terms of their understanding and application of theory to practice. In addition coaches in training are, by the nature of the training frontline staff and as such perhaps have the greatest challenge in applying the necessary rigor to improvement such as effective meetings and staying on track with the improvement process. Many first time coaches and teams spend a long time understanding the 5P's which can result in frustration at a lack of pace. The 5P assessment is often seen as a 'safe' period where teams and coaches ask a lot of 'why' questions rather than the more difficult position of 'how' as teams move through aim setting and planning tests of change.

Culturally many teams experiencing coaching for the first time have very little or no prior knowledge of how to undertake improvement work and have traditionally been used to change being directed or imposed in a top down fashion; often with solutions pre-prescribed without an understanding or appreciation of the causative factors. Working on the human elements of change in conjunction with local culture pose significant challenges to coaches and teams which are often heightened due to the inexperience of new coaches. As a result the tenacity of the coach to continue can be challenged and has at times resulted in abandonment of the meetings or failure to progress. In developing the programme the MCA is continually looking to how coaches and teams can be supported so the conditions for success can be maximised. As we learn we have discovered that team members themselves require help with their own knowledge about improvement which in turn helps compliment what the coaches are learning through the training. Although this area of work is relatively new anecdotal evidence would suggest some basic QI training for team members eases the burden of teaching somewhat on the coach as the team begins to meet.

Coaches come to the MCA because of an interest in improvement and a desire to be involved in helping teams undertake improvement or to understand how teams might approach improving their systems. Throughout all the cohorts we have seen a number of senior managers attend with a mixed output in terms of course completion or successful improvements made with teams. However, many of these individuals have become ambassadors for microsystem improvement and their subsequent roles have in part become as enablers and supporters of future work.

A definite unintended consequence has been the breadth of activity (QI Courses, Connect, Collaboratives etc.) the MCA has had to set up to support coaches. The MCA endeavoured to rapidly innovate to support coaches when it became clear early on that training coaches alone was not enough to trigger ongoing quality improvement.

On a broader note it was anticipated that the MCA might generate a level of external interest. However the amount and breadth of external interest generated has far exceeded what was expected. In particular the requests to visit began to rapidly exceed our capacity to accommodate them. Interestingly the level of interest from senior leaders in other healthcare organisations at times felt greater than that from similar groups locally which presented the MCA with an opportunity not only to share learning more widely, but showcase the amount, level and importance to patients and staff of local improvement work underway in Sheffield to our own organisations.

In April 2014 a 1 day Showcase event was held to briefly explain the history and methodology of the improvement approach and more importantly to share examples and experiences of the teams and coaches undertaking the work. The day was opened by a video of a patient who had participated in a microsystem project and saw several frontline staff share their experiences of coaching and microsystem improvement. As the MCA develops this interest continues to grow and we have seen 3 nurses from Northern Ireland participate on cohort 4 and Coaches from Scotland and Sheffield CCG joining on cohort 5.

13. In what ways would your intervention be useful or replicable for people working in another context?

For anyone considering replicating the MCA the basic advice we would offer is to start small. The MCA as a concept evolved over time and was initiated after testing microsystem improvement methodology on a small scale, with a few teams and by training 2 individuals as team coaches. As confidence and interest grew the logical step was to train coaches at scale to start building improvement capability within the frontline staff.

Critically we would advise other organisations to carefully consider their own context in terms of the MCA's core function, how this might relate to their specific context, including the habits and cultural attributes of the organisation then consider the levels of will and engagement present in relation to the change.

Once this assessment has been done and there is a degree of confidence that the MCA concept could be replicated organisations should then consider the scale of test and what conditions are required to maximise the chances of success. Before even considering setting up an academy we would recommend 2 or 3 coaches train with the Sheffield MCA. A balance needs to be struck where the scale of test is not too large, as this allows for failure, and to learn from failure in a safe environment, and enough coaches in training to feel they have peer support and enablement locally. Crucially a small number of coaches in training allows for a range of experience and learning for the organisation and testing within more than 1 context locally. The opportunity also exists to test the cultural response to the methodology and organisational engagement and enablement to try microsystem improvement.

Of key importance is the need to focus first efforts with teams who are enthusiastic and have a high degree of will and energy to undertake local improvements. Although it may effectively be difficult for organisations to undertake this 'under the radar' we would recommend careful consideration is given to who will be a coach and who will be coached. Organisations need to consider what is right for them but it may be that a mix of frontline staff and one senior leader gives a more balanced and objective view of the value of the programme, maximises the learning in terms of what might be possible for frontline staff and teams and give a leadership perspective on the commitments and conditions required to undertake microsystem improvement locally. In reference to testing 'under the radar' organisations wishing to replicate the MCA should carefully consider learning if this is right for them and as such should approach testing as just that and not be tempted to pre-judge outcomes by formulating business plans describing how an academy should be set up and managed.

Application of microsystem improvement is often very different in each team and this can be evidenced by reviewing the journey of those who have been coached by the same coach but have very different outcomes. For example there is evidence that despite applying the same principles and ways of working with the same coach some teams manage to make considerable progress with measurable change and building improvement capability, where others struggle to meet effectively and progress meaningfully beyond the 5P stage. By pre-judging the solution organisations potentially run the risk of investing heavily in a programme that might not be right for them. However, the MCA built on the evidence from TDI and other organisations can take a relatively high degree of confidence that should a test be successful they may be able to replicate at scale.

Crucially for other organisations is consideration of the learning gained through the Sheffield MCA about the conditions required for successful microsystem improvement. Enablement at all levels of the organisation has often proved to be the lever for success or failure. Where teams are given the time and space to meet regularly and feel able to discover and work on improvements important to them and their patients they often galvanise in terms of meeting and taking ownership for the work. Within this the application of effective meeting skills which serve to flatten hierarchy, give a voice to all members and foster ownership of the work are core components of the methodology that have shown to be effective. Where teams are directed to undertake improvement work or restricted in the approach by desires to improve at scale and or accelerated pace success is often limited. In considering how teams and coaches can be enabled and allowed to foster ownership for the work organisations should carefully consider their communication plans in terms of, who and how discussion about improvement work is communicated. Over time we have learnt that middle management are key in terms of enabling teams to meet and allowing improvement work to develop. Very often senior leaders, although often lacking in basic QI training and understanding, are keen for teams to undertake improvement work and sponsor or approve teams to undertake microsystem improvement. Organisations would be well placed to consider how that message is translated down through to the front line; in essence having the right discussion with the right people in the right place at the right time.

Improvement work is inherently challenging. Other areas should consider if they have dedicated teams who wish to engage with improvement work and how comfortable they are with experimentation and allowing teams to go 'under the radar' to some extent and learn from failure as well as success. Sheffield has for many years had a dedicated Service Improvement function with leadership trained in QI. We would recommend that other organisations consider if they have individuals who are seen as QI champions as well as those with good vision.

Of high importance to the MCA in Sheffield has been the success of the **2 day QI course**. This course introduces the key concepts and thinking about QI from the technical, theoretical and human elements of improvement. Primarily aimed at clinicians and middle grade managers the course has proved important in enhancing individual's knowledge and understanding of QI which in turn has either supported enablement for improvement work to be supported either through management or clinician endorsement and participation.

As a method of embedding QI in to the everyday function of an organisation we believe the MCA has huge potential. However as we progress we also learn that changing culture takes

time and that the improvement agenda is a continuous one. As the MCA has developed we have built up a network of coaches and teams coached. Over time we believe will prove useful and effective in demonstrating the potential to build improvement in to the everyday working of teams and help develop the collaborative mechanisms required between clinical teams, corporate functions and leadership roles to support improved quality of care delivery at the front line. In addition to this all the partner organisations have a service improvement function that the 'MCA' sits within. Within STH, as an example, the MCA function forms the major part of the building capability function of SI which underpins its strategy. Whilst not forming the whole SI strategy for the trust it is recognised that the MCA is the way we approach QI and develop improvement capability within the organisation. Practically having this recognition within the SI strategy provides a uniform statement as well as definitive guidance for the wider organisation.

Summary of some other key lessons –

- Be consistent in methodology, language and aim
- Keep it simple and translate QI tools and language to make it easy for front line staff to engage in QI
- Be responsive in providing support and building QI capability in teams, coaches and leaders

14. What are your reflections based on your project on how change happens, new models of care and evaluating complex change?

QI is basically behaviour change. Tools, techniques and the ability to evidence change and a methodology within a framework are all important and essential aspects but working with and together with others is by far the most important element to successful change.

Throughout the development of the MCA we have linked the intervention of coaching with improvement science and it is here that we see the difference between many other approaches to QI initiatives. Coaching is essential a helping function which in itself is complex and involves many aspects such as trust and the development of relationships, 'meeting people where they are at', what are their previous improvement experiences, what is their level of motivation to change and how favourable are the conditions for improvement to flourish? Where teams have enabling leadership both clinically and corporately and are supported to meet regularly with a strong sense of ownership of the work then change can become transformational. Where teams are either told, volunteered or feel obliged to engage with QI work then the chances of success are lower.

The Institute of medicine describes will, ideas and execution as the 3 essential components required for improvement to happen. Through the MCA we have learnt that teams often have an abundance of ideas, we can effectively provide the means by which change can be executed but without the will to engage with microsystem improvement change is either ineffective, un-sustained or poorly measured and evaluated. To this extent we still believe that for microsystem improvement to flourish it is always best to 'go with the energy' and consider the leadership environment the microsystem exists in. In addition to this teams who develop effective communication channels in and around the microsystem team appear to be more successful in developing the will to improve. This can be driven from a clinical or

corporate leader, someone who has dedicated time for QI or effective use and dissemination of measures and results.

In terms of developing new models of care the MCA to date has demonstrated that a consistent approach to improvement and bringing multidisciplinary groups together around a shared environment with patient need at the centre can help foster a shared purpose and result in the ability to make meaningful changes that impact positively on patient care. Through the MCA's learning we are now embarking on an ambitious programme which aims to learn how to coach improvement at care pathway level. In conjunction with learning from other flow work we have a high level of confidence that we can help understand how to link multiple microsystems together to improve the patient journey in a way that more accurately meets the needs of patients across their whole care experience. The Flow Programme is in its infancy and is not designed to replace microsystem improvement work but does represent an ambitious new direction that potentially results in a model that can be scaled and spread across multiple organisations. We are testing the idea of collaboratives where ward or outpatient departments are supported by a co-coaching model as well as 4 joint learning set across the year and early indications would suggest the co-coaching model provides some resilience, consistent message and coach support whilst the collaborative learning sets encourage shared learning, a level of competition and sense of shared ownership which we hope will help in sustaining improvement activity.

Although the MCA has been formally evaluated we have recognised that evaluating complex change of this type is extremely difficult. Sometimes one single change does not result in improvements rather a range of small tests of change generate positive results. In this sense learning and evaluation are closely linked and in order to continue to evaluate the effectiveness of the MCA we will need to develop strategies that continue to capture multiple metrics both at the individual coach and microsystem level as well as more globally within the partner organisations.

In developing future models that capture learning we continue to develop and seek new ways to establish the effectiveness of our teaching on coach development as well as how to capture improvement metrics without taking the ownership away from teams. Improvement requires cultural change and as such is a slow process. Modelling good behaviour in displaying data and helping in terms of making it easy to do the right things are all important in building a culture that starts to see improvement as normal. We believe that where organisations can contribute to a culture of 'metrics that matter', display of data and improvement results then any evaluation of change will be easier.

Section 5 Embed and Spread

Embed and spread

15. In what ways has your intervention been sustained?

The MCA was never intended as a 'task and finish' project. Its very nature is one of development over time involving iteration of ideas not only to further our aim of a continuous improvement culture but also to continually improve the academy itself. Within Sheffield there is endorsement and commitment from all partner organisations to sustain and build the MCA following the funding period and resource has been secured on a long term basis to ensure this happens. We do generate a level of income through external partners training with us as well as the development of the QI courses and events such as MCA Expo. This is a modest return but demonstrates to the organisations that whilst primarily providing a function that is by its very nature difficult to quantify in terms of return on investment we can contribute financially to the point of being self-sufficient in providing internal training and development as well as outward facing events.

Our partner organisations continue to be fully involved in the MCA's development and both SCH and SHSC continue to train coaches and embed microsystem improvement in to their respective organisations. SHSC have now secured a regular faculty member and are developing a strategy for coach selection, training and team selection to further help sustainability in their context. SCH continue to remain active with coach training and develop coach numbers consistent with their context and size and have been successful in training both senior clinical and managerial leaders who remain active coaches as well as ambassadors for the MCA. As we move towards engagement with partners from primary care and commissioning within cohort 5 of the programme we hope to be able to further test microsystem improvement across the local health economy.

To further embed and spread the work achieved so far we held a microsystem festival in June 2015, our first MCA Expo, inviting connected and involved people to share learning, gain further improvement knowledge and help inform how microsystem improvement should develop. The Expo attracted 200 delegates and attracted participation from eminent speakers such as Paul Batalden and Marjorie Godfrey from Dartmouth and Michael West from the Kings Fund.

Cohort 5 saw the MCA test a ward collaborative where a number of wards are supported with microsystem improvement but also benefit from 7 shared collaborative sessions across the year and a co-coaching model where a new coach is supported by someone with experience. This model aims to test shared learning, improvement and capability building and enhanced coach support at scale whilst maintaining the regularity and rigor of microsystem improvement. The MCA Ward Collaborative is yet to be evaluated but early results look promising with teams quickly becoming established and progressing up the improvement ramp. Learning so far has generated enough confidence to expand this programme of work and an outpatient collaborative has commenced with cohort 6.

Furthermore STH in conjunction with Warwick Hospitals NHS Foundation Trust, The Royal United Hospitals NHS Foundation Trust Bath supported by the Health Foundation and West of England Academic Health Sciences Network has established a Flow Programme' working alongside the MCA to test improvement at the care pathway level working with multiple

microsystems across patient pathways. This work is embryonic but will again test improvement potential at scale.

As we develop we intend to learn from the formal Health Foundation evaluation process as well as from a cost benefit evaluation being considered internally. In conjunction with this, the wider Service Improvement function within STH is conducting a piece of work to establish meaningful metrics about how we measure the value of the work we support. This will additionally help inform how the MCA evaluates sustainability.

The MCA itself actively captures stories from the field and we are seeking new and innovative ways to enable previously trained coaches to continue to coach, particularly after their first microsystem. The continuation of additional QI courses, learning materials and networking events also form a central strand to our strategy to sustain gains made, generate interest and contribute to the wider spread across Sheffield.

In addition to this the academy has presented to two showcases of local frontline improvement work which was attended nationally and internationally and we have been represented at a number of key conferences. This exposure outside of the Sheffield health economy has resulted in a number of enquiries from outside of Sheffield regarding either information about our approach or requests to attend training.

Our key strategy to aid spread and embed is to continue as we have from the beginning in the sense that spread is mostly passive and comes from the people involved in improvement work. We aim to build a movement where people choose to join in. It is the frontline staff who are either coaches or has been involved with a team who are best placed to own the work and communicate its value to their colleagues. We have examples of the effectiveness of this in terms of trained coaches engaging with the MCA's activities and generating additional teams who want to be coached and coaches who want to learn. This happens mostly through word of mouth, meeting people who have been directly involved and who see the benefit and value of improvement work. We promote and consistently use an established methodology in all of our approaches to improvement and have successfully used the MCA brand to promote improvement activities. For example the ward collaborative is inextricably linked to the MCA and many of the MCA's materials and educational materials were used in a national collaborative, Frailsafe, looking at the implementation of a checklist for the early assessment of frail older people.

As we develop we are also mindful that our expertise in delivering the educational and support aspects of the MCA should be strengthened and developed at every opportunity. We have added to the teaching faculty to support this as well as meet the demand of increasingly larger cohorts and the demands of additional requests for QI training both locally and further afield.

The MCA can and does promote microsystem improvement and build improvement capability and knowledge. However it is the frontline teams themselves who will inevitably implement this knowledge, deliver improvements in patient care and decide the success or otherwise of the MCA.

16. What success have you had in spreading and publicising your work and what are your future plans in this area?

As part of the MCA's development we have had a number of successes in publicising our work. Of note is the development of our website which acts as a public facing platform as well as dedicated faculty and coach areas. On the outward public facing pages people are free to browse basic information about the academy and the methodology we teach. We introduce what microsystems are, what microsystem improvement is, what the conditions for success might look like and the potential journey of a microsystem and coach.

In addition to this visitors can read short case studies submitted by coaches and team members as well as begin to understand what we mean by QI. For those interested a dedicated email contact is available (linked directly to the MCA Manager) for further enquiries.

Potential coaches and teams are also able to apply directly through this section of the website. Once coaches commence their training they are provided with individual login details and access to cohort specific pages, learning resources as well as dedicated space to submit work and receive feedback on this. In addition the website is also the main vehicle whereby we advertise events, news and additional teaching opportunities.

<http://www.sheffieldmca.org.uk/>



As previously described to complement the website we have also developed a range of additional learning materials including lunchtime hour long quality improvement curriculum teaching sessions, quality improvement courses and resource publications such as one page guides. Details of these are freely available on our website.

Stories from the field documenting the journey real front line teams and coaches have been through to make sustainable improvements form one of the most effective ways we have in publicising and shared the improvement work.

Over the course of the MCA to date we have developed an event called MCA Connect which serves to bring coaches, team members and those interested and or engaged with improvement work together. These events started as Sheffield based 2 hour lunchtime sessions where coaches and teams could network, learn new material and hear stories relevant to improvement, whether from healthcare or industry. More recently we have seen the potential value in less frequent events over a whole day with a more varied content. Our most recent event was held in January of 2015 with over 50 representatives from Sheffield, healthcare organisations in Lincolnshire and the Continuous Improvement Team from the Sheffield Home Office. As part of this event cohort 4 graduated and presented posters with their stories to date as well as 2 additional stories from the field from previous coaches and teams.

The MCA has publicised the work through two large scale events, the MCA showcase in April 2014 and the MCA expo in June 2015.

In addition to publicising our work locally the MCA has been represented and presented at:

- **The Jonkoping Microsystem Festival in Sweden 2014**
- **The IHI International Conference in Orland 2014**
- **1000 Lives conference in Wales 2014**
- **Patient Safety 24/7 in Scotland 2014**
- **Patient First London. 2015**

In August 2014 the MCA won the Health Service Journal Changing Culture Award in the Patient Safety and Care Awards and our Lead faculty Member (Steve Harrison) most recently won the NHS Mentor/Coach of the Year Award ahead of a nation field of candidates.

More recently the MCA featured in the Health Foundation's Learning Report 'Building Foundations For Improvement' along with 4 other case studies describing how Trusts are building QI capability at scale.



<http://www.health.org.uk/publication/building-foundations-improvement>

Appendix 1: Supporting evidence

The full range of supporting information listed below is freely available on the MCA website at <http://www.sheffieldmca.org.uk/>

One Page Books

- **Team Coaching.** Designed to give the reader a basic introduction to some of the human elements of microsystem improvement and the team coaching model developed by Marjorie Godfrey
- **The Microsystem Improvement Ramp.** Designed to give the reader a basic introduction to the improvement ramp and how the improvement science is structured
- **Microsystem basics.** Designed to give readers a brief introduction to the microsystem approach to improvement
- **Sheffield Microsystem Coaching Academy.** Designed to give readers an overview of the teaching sessions and activities offered by the MCA
- **Assessing your Microsystem using the 5P's.** Designed to give readers a brief introduction to the 5P's assessment process
- **PDSA Cycles.** Designed to give readers an brief introduction to plan, do, study, act cycles to rapidly test improvement ideas
- **Run Charts.** Designed to give readers a brief introduction to simple measurement and run charts as a method to determine if changes are improvements
- **Statistical Process Control Charts.** Designed to give readers a basic introduction to the theory of how to use SPC charts when measuring for improvement
- **Effective Meeting Skills.** Designed to give readers an overview of how to engage team members in a way that uses time effectively and adds meeting discipline and structure to improvement work
- **Variation and Queue Theory.** Designed to introduce the reader to types of variation and how to manage it to reduce waiting and waste

Quality Improvement Curriculum

In addition to the range of teaching offered on the course the MCA hosts a number of hour long sessions related to key concepts and themes within the course. The website holds details regarding the content of these sessions. The QI Curriculum sessions currently offered are themed under 4 main headings as follows:

- **Systems Thinking.**
 - Value stream mapping
 - process mapping
 - iterative design (complexity and PDSA)
 - visual management

- **Understanding Variation, Capacity and Demand.**
 - Introduction to variation
 - Queuing, capacity and demand basics
 - Understanding system dynamics using simulation
 - Flow through theatres

- **Measurement and Understanding Healthcare Data.**
 - Excel and Pareto charts
 - Introduction to run charts
 - Excel and run charts
 - SPC charts
 - Introduction to Win Chart software for measurement
 - Pivot tables
 - Data moulding and pivot chart construction
 - Driver diagrams

- **Coaching Practice.**
 - Team coaching, behaviours and preferences
 - Brainstorming and multi-voting
 - Transition planning and tools

- **Quality Improvement Theory.**
 - Social movement and large scale engagement
 - Motivation theory
 - Change, escape fire
 - Sustainable improvement and behavioural change

Appendix 2: Local evaluation

Our local evaluation is now complete through our evaluation partners, National Institute for Health Research and Collaboration for Leadership in Applied Health Research and Care Yorkshire and Humber. The evaluation framework is based on a theory of change approach linked to the logic model of programme planning and evaluation. This approach allows for systematic evaluation of the links between inputs, activities, outcomes and the context of the initiative.

This report, including the 'logic model' has yet to be formally published but further information can be found here:

<http://clahrc-sy.nihr.ac.uk/implementation-themes/translating-knowledge-into-action-tk2a/projects/microsystem-coaching-academy>

Appendix 3: Finances

In total the full award from the Health Foundation to include set-up and implementation of the MCA amounted to £420,000 over 3 years.

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