System change through situated learning

Pre-evaluation of the Health Innovation Network's Communities of Practice

Bryn Garrod, Tom Ling

RAND EUROPE

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Preface

This report looks at Communities of Practice (CoPs) associated with the Health Innovation Network (HIN), which is the Academic Health Science Network (AHSN) for South London. AHSNs are organisations that aim to drive adoption and spread of innovation across healthcare by bringing together researchers in universities, industry and entrepreneurs, and the local NHS. CoPs are self-organising and self-governing groups of people who share a passion for the domain of what they do and strive to be better practitioners by developing and spreading new knowledge, practices, capabilities and organisational capacity.

The HIN hosts a Patient Safety Collaborative which in turn supports the CoPs discussed in this report. These CoPs cover: medicines safety; maternity; duty of candour; medicines optimisation; sepsis; acute deterioration; and delirium. There are strong grounds for seeing CoPs as providing a creative and effective contribution to improving health and care, but there is also a need to interrogate these arguments and develop further the evidence base for how CoPs work and with what consequences. This is needed both for members of communities to learn and improve and to justify the investment of time and resources.

This project is a scoping exercise to collect data that will be used to assess the feasibility of and best approach to a full-scale evaluation of CoPs. However, the data is also intended to provide immediate and useful evidence to help the CoPs improve their effectiveness as well as giving early indicators of their potential for success.

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While it is nowhere claimed that Communities of Practice (CoPs) are suitable for all issues facing health and care systems, there is a plausible argument (supported by anecdotal evidence and experience) that there are challenges that they can especially help to address. Such challenges are associated with working within complex systems while trying to bring about improvements in evidence-based practice. They relate to a failure to share knowledge and learning across organisational and professional boundaries. However, the formal and more systematic research evidence to support judgements about the value of CoPs (and for whom) is weak, as is the evidence about how best to mobilise CoPs for maximum benefit. It is important to recognise that this problem is not specific to CoPs: the evidence also shows that many other quality improvement initiatives fail to improve quality and many innovations do not deliver the anticipated benefits; this is a complex field with incomplete evidence. However, if only fully evidence-based decisions were taken, there would be little or no improvement or innovation. There is therefore a need both for further evaluation and further research to inform future work in this area and for integrating 'real-time' evaluation into the fabric of improvement and innovation. If CoPs are to be a part of current ambitions to transform health and social care in the UK and beyond we urgently need a deeper understanding of their operation and consequences.

Fully aware of this context, the Health Innovation Network (HIN) in 2015 set up the CoPs discussed in this report. As the Academic Health Science Network (AHSN) for South London, the HIN aims to enhance connections across groups of practitioners, academics, industries, local governments and service users in order to drive the spread of evidence-adoption and innovation for the wider benefit of local populations. As part of this remit, the HIN hosts a Patient Safety Collaborative, which in turn supports the CoPs discussed here. The CoPs were set up in 2015 covering the following areas: medicines safety; maternity; duty of candour; medicines optimisation; sepsis; acute deterioration; and delirium. Members included NHS non-medical and medical staff, covering a range of professional groups, and academics.

The CoPs have successfully established a shared approach drawing on the support and experience of Myron Rogers, an acknowledged expert in this field, who in turn draws upon the work of Etienne Wenger and others (Lave and Wenger 1991; Wenger et al. 2002). Firstly, the HIN approach is underpinned by five maxims coined by Rogers (Hopper et al. 2015):

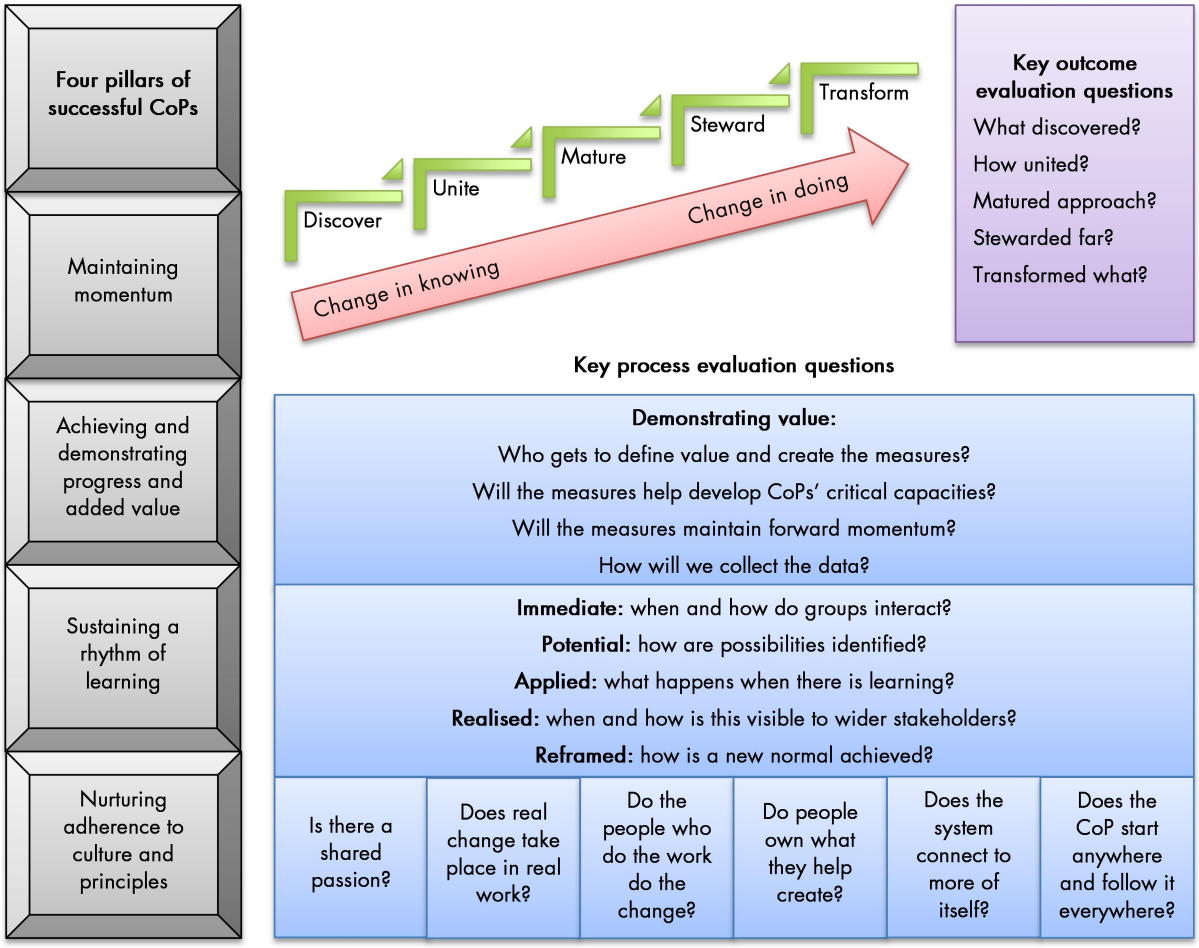
1. People own what they help to create
2. Real change happens in real work
3. Those who do the work, do the change
4. Connect the system to more of itself
5. Start anywhere, but follow everywhere.

Secondly the approach recognises that CoPs develop through stages (rather than arriving fully formed). These stages are:

- Phase 1 Discover
- Phase 2 Unite
- Phase 3 Mature
- Phase 4 Steward
- Phase 5 Transform.

Informed by this approach, the HIN CoPs have made progress in the early stages on their route to transforming care. The accomplishment of these difficult steps towards establishing a community with a shared passion and a mutual interest in learning together, in a context of high demands on staff time and urgent managerial imperatives, is impressive. However, the next steps towards achieving change and demonstrating value may be even harder. Figure 1 below shows the theory of change (ToC) and potential future evaluation questions we developed based on data collected during this project. In these terms, the CoPs that we reviewed have made progress in the areas of 'discover' and 'unite', and are beginning to 'mature'; but they now face the further challenges to 'steward' and 'transform', recognising that the stages can overlap and that the CoPs are not all at the same stage of development. In this respect they have begun to nurture adherence to the culture and principles of CoPs, with some evidence of sustaining a rhythm of learning, but are yet to fully demonstrate value-added. First, it should be emphasised that this is an absence of evidence that demonstrates value has been added rather than a presence of evidence that value has *not* been added. Second, it should be recognised that there is no simple and deliverable alternative to CoPs that will evidently be more successful in addressing the problems identified in each domain.

Figure 1. ToC of CoPs



The work reported here is intended to achieve two related aims. The first is to identify lessons for taking the HIN CoPs forward; the second is to outline recommendations for developing a research proposal, using data from the HIN CoPs, to help plug the substantial evidence gap to understand what CoPs might deliver, how they might do so, and how such accomplishments might be evaluated. These lessons and recommendations are summarised below.

Based on our research, we propose a five-level maturity model for the HIN CoPs, shown in Figure 2. These levels do not correspond to the five green steps in the ToC in Figure 1 above; those in the ToC are the steps by which CoPs lead to improvements in health and care, whereas those in Figure 2 are the stages CoPs pass through as they develop and become more mature. The key lesson for the HIN is to consolidate to achieve level 3 of this model and then to move progressively towards levels 4 and 5.

Figure 2. Proposed maturity model for CoPs based on research for this project









Maturity level	Direction	Leadership	Membership and collaboration	Integrity and vitality	Knowledge generation and capture	Use of knowledge and improvement	Impact and value	Sustainability, sunsets and renewal
1	A weak belief that working with others outside the organisation or profession would help, but no clear domain	Unclear leadership and just about struggling from one meeting to the next	Meeting attendance is ad hoc, volatile or stagnating	CoP members interact sporadically and with little energy and enthusiasm	Conversations tend to be repetitive with no rhythm of progress in learning	Learning is sporadic and infrequent with little impact on work	The CoP rarely if ever discusses the value it creates	The CoP is maintained on life-support by external organisation and inertia
2	Domain(s) not yet clear to all members	A leader has emerged who despite limited time can convene the CoP and include suitable members	Members are aware of how to meet and when	Energy is concentrated in a small number of usual suspects	Threaded discussions exist but these are not systematically developed into insights	Learning stays in the CoP and has little resonance in wider work	Accounts of value added are unclear and unconvincing	Membership levels totter on the edge of stability and purpose is often not renewed
3	Shared passion for the domain	A leader has emerged with sufficient time and capacity to facilitate the CoP effectively	Structure for meeting and learning is in place	Energy is spread widely within the CoP	Members can remember and build on insights and new knowledge created by the CoP	The CoP is a place where learning is shared and reflection takes place	Members feel the CoP adds value and some external resource-holders share this feeling	A steady number of members join organically around the core domain
4*	Clear and agreed outcomes for the domain	Skilled leaders can include, enthuse and galvanise learning	Agreed sense of who needs to be in the CoP and how to work together	Leaders ensure an energetic, purposeful and inclusive atmosphere	Information and knowledge created in the group is well curated	Themes emerge from members' work and support situated learning	There are good stories about the value created that are widely shared	Succession plans ensure continuity, and appropriate turnover of members is welcomed
5*	Shared focus on the domain but within this reflexive and adaptable	Leadership is shared	Those who are in the CoP are sufficient to make the desired progress within the respective domain, and they can work together	CoPs feel and act like energetic and ethically driven groups	New, creative insights are generated and communicated	The CoP provides a platform for members to learn in work situations and collectively reflect	The CoP has acknowledged and visible benefits in the quality of work done	The CoP survives and thrives without individual or organisational support and knows if its purpose is complete

* To achieve level 4 in a column, a CoP must meet the criteria described in the rows for both levels 3 and 4. To achieve level 5, it must meet the criteria described in the rows for levels 3, 4 and 5.
Source: original work based on research for this project.

In this report we identify four key overarching future evaluation questions along with associated subsidiary questions. The key overarching questions are:

- (How) is the momentum towards transformation sustained and what are the wider dependencies that are needed for this to happen?
- (How) is progress and value-added measured?
- (How) is the rhythm of learning sustained?
- (How) are cultures and principles nurtured and sustained?

We also identified a set of 'lower-order', but nevertheless important, evaluation questions. These relate to:

- **Knowledge and learning:** How do CoPs contribute to knowledge creation, if at all, and what is distinctive about the knowledge created? How actionable is this knowledge and when and how does it lead to changed behaviour, if at all? What is the nature of 'situated learning' (learning in the context in which it is applied) in relation to this question and how has this worked in practice in the HIN CoPs?
- **Measurement:** What are the available tools for measuring the added value, learning, behaviour change and deliberate embedding of a change of culture? How have these been operationalised in relation to the HIN CoPs, or how might they be?
- **Patient safety:** The HIN CoPs began as a response to the need to address patient safety. To what extent do the HIN CoPs support the idea that they are a feasible and effective response to this need?
- **Managing CoPs:** What infrastructure and management support help CoPs to be effective? What does it mean to be 'self-organising and self-governing' when still dependent on support and leadership from the HIN?
- **Transferability of lessons:** To what extent are the lessons from the HIN CoPs transferable? What would be needed for any changes of practice resulting from the work of the CoPs to be scaled up?
- **Sustainability and sunsets:** What do the HIN CoPs tell us about their sustainability and how they are completed?
- **Purpose and 'home ground':** What outcomes or impacts, if any, are CoPs especially well placed to accomplish? Are there especially fertile 'home grounds' where they are likely to flourish and, conversely, are there circumstances where they are almost certain to fail?

Acknowledgements

We are very grateful to the Community of Practice members and wider system leaders for giving us their time in workshops and interviews, and in completing a survey. We thank Myron Rogers for sharing his experience and methods so openly. We also thank all those at the Health Innovation Network who supported this work practically and with their own learning from the Communities of Practice. Finally, we hugely appreciate the helpful and constructive comments from our quality assurance reviewers, Carla Cox and Joanna Hofman.

Abbreviations

AHSN	Academic Health Science Network
CoP	Community of Practice
HIN	Health Innovation Network
NHS	National Health Service
NIHR	National Institute for Health Research
PDSA	Plan Do Study Act
QI	Quality Improvement
ToC	Theory of Change

1. Introduction

1.1. Context

An important part of the context for the focus of this Report is the recognition that many widely used approaches to quality improvement (QI) in health and care (and elsewhere) do not improve quality. As Dixon-Woods and Martin (2016) write, 'although QI is frequently advocated as a way of addressing the problems with healthcare, evidence of its effectiveness has remained very mixed'. Past results from QI have also been patchy (Ling et al. 2010). The reasons for this patchiness are varied but include inadequate or incomplete implementation, too many short-term projects which never had a chance to bed down, taking approaches that worked elsewhere but failing to take local context into account, and failure to engage and learn from those whose engagement and understanding are critical to success. We also know that in health and social care, attempted innovations frequently fail to deliver anticipated benefits (Herzlinger 2006).

Communities of Practice (CoPs) are felt by some to offer the means to overcome some of these challenges (Ranmuthugala et al. 2011). CoPs are defined as self-organising and self-governing groups of people who share a passion for the domain of what they do and strive to be better practitioners by developing and spreading new knowledge, practices, capabilities and organisational capacity (Health Innovation Network 2015). The assumption is not that CoPs can replace all other efforts to improve quality (such as standard QI methods, incentives, regulation and transparency) but that faced with certain kinds of improvement challenges, CoPs can make a valuable contribution to improving quality. The CoPs considered in this Report were in part inspired by this challenge. They were set up in 2015 by the Health Innovation Network (HIN), in part to explore if and how they could contribute to visible improvement.

The HIN is the Academic Health Sciences Network (AHSN) for South London, one of 15 AHSNs across the country. The HIN aims to enhance connections across groups of practitioners, academics, industries, local governments and service users in order to drive the spread of evidence-adoption and innovation for the wider benefit of local populations. As part of this remit, the HIN hosts a Patient Safety Collaborative which in turn supports the CoPs discussed here. The CoPs set up in 2015 and referred to in this paper cover: medicines safety; maternity; duty of candour; medicines optimisation; sepsis; acute deterioration; and delirium. In describing their own work, the HIN CoPs use three key terms that will be returned to later in this report: the domain (the problem area that the CoP is focused on addressing); the community (the group of people who interact, communicate and support each other building trusting relationships); and the practice (developing and improving practice through sharing formal and tacit knowledge and talking about how to improve). There are strong grounds for seeing CoPs as providing a creative and

effective contribution to improving health and care, but there is also a need to interrogate these arguments and develop further the evidence base for how CoPs work and with what consequences. This is needed both for members of communities to learn and improve and to justify the investment of time and resources.

1.2. Purpose of this paper

This project is a scoping exercise to collect data that will be used to assess the feasibility of, and best approach to, a full-scale evaluation of CoPs. The data is also intended to provide immediate and useful evidence to help the CoPs improve their effectiveness as well as giving early indicators of their potential for success.

The objectives of the research are:

- To improve understanding of how, when and why the knowledge generated within CoPs can generate improved working, and identify how this understanding might be deepened through a further evaluation.
- To identify how the CoPs work currently and how this understanding might be deepened through a further evaluation.
- To strengthen efforts to build generative relationships (relationships that generate new solutions to complex problems) within the CoPs and to identify where these efforts are most needed.
- To integrate findings with the working and coaching methods used to maximise learning and improvement opportunities.
- To identify funding opportunities for a further and deeper evaluation and to engage key stakeholders in addressing future evaluation options.

In this introduction and in the following sections we first outline the generic features of CoPs in health and social care and then locate the HIN CoPs in this context.

1.3. What issues are CoPs best equipped to address?

It is nowhere claimed by the HIN or others that CoPs offer a solution to all improvement problems. However, they are considered to have 'home' areas where their strengths are most apparent: in the UK, as elsewhere, the particular strengths of CoPs in health and care have been linked to learning, sharing knowledge, and improved working together:

1. Strengthening learning and reinforcing the capacity to act on lessons learned (Nicolini et al. 2016).
2. Facilitating multi-professional information and knowledge sharing (Richardson 2016).
3. Contributing to a more general need to achieve better ways of working, to deliver high-quality care within constrained budgets, by improving productivity (Ranmuthugala et al. 2011).

The problem of how to nourish a culture of learning and use consequential lessons to improve practice is returned to frequently in the Francis Report on the Mid-Staffordshire Hospital Trust (Francis 2013) and

again in the Berwick Report on patient safety (Berwick 2013). Identifying that poor learning is a problem has proved to be easier than solving it, and efforts to do so have been frustrated by fragmentation associated with disciplinary specialism and organisational separation (Nicolini et al. 2016). By working around the disciplinary and organisational boundaries, CoPs have gained a growing reputation as a valuable means to improve knowledge sharing and collective learning (Wenger 2010). It has also been suggested that CoPs can strengthen efficiency and productivity (Ranmuthugala et al. 2011). However, more recently, alongside this belief that CoPs add value there is a recognition that demonstrating this is difficult: 'Although there is widespread acceptance that CoPs are useful, formally assessing their value and understanding what helps them be more effective is less easy: they are complex social systems, and it is inherently difficult to directly connect cause and effect' (Van Winkelen 2016).

At an April 2015 workshop, seven HIN CoPs were created and by October of that year, following a further workshop, conveners were announced and initial focuses for the domains developed. According to the HIN website:

> The majority of CoPs decided their initial focus would be mapping what clinical practices, training and or data collection was occurring across those organisations which are members of the Patient Safety Collaborative. Many have identified standardised data collection and the provision of consistent training across member organisations as areas of immediate focus. (Yazicilar 2015)

At around this time Dr Daghni Rajasingam, convener of the Maternity CoP, was quoted as saying:

> The Maternity/PPH CoP is considering postpartum haemorrhage below 1.5 L of blood loss, which we recognise is generally less well documented. It is, however, on the increase across the UK and especially so across London. The morbidity associated with this is often unrecognised by maternity teams and primary care due to poor communications between primary and secondary care. Additionally, it can adversely affect bonding, breastfeeding, mental health of the mother and be a traumatic experience for both the woman and her partner.

Emphasising the cross-organisational and cross-disciplinary aspects to the work, Dr Rajasingham goes on to say:

> The community is keen to involve interested stakeholders across South London, through the Safety in Maternity Services (SIMS) (multi-profession) network and the London labour ward leads (medical) networks. The group will also ensure the input of women who can make sure we consider what is important to them in these situations. We are also keen to engage educationalists and improvement methodology experts within the community. (Health Innovation Network South London 2015)

Dr Rajasingam is therefore proposing CoPs as a means to address a significant issue by enhancing learning and improvement practice.

By the time of a workshop in April 2016 these 'areas of immediate focus' had matured (as demonstrated by the focus of the presentations). The desired outcomes for the day included:

- To 'connect the system more to itself' – to learn from and with each other
- To expand our knowledge about CoPs and harvest the knowledge each has generated

- To improve our skills for doing the work of our communities
- To move our communities to the next level of maturity.

The principles identified at the workshop also articulated a commitment to situated learning (learning in the context in which it is applied), working across organisations through a network of relationships, and understanding how the domain of work sits within the system (Unpublished presentation from the workshop). In other words the principles suggest a particular approach to the three strengths of CoPs in learning, sharing knowledge and improving how work is done (in particular through a focus on a domain rather than a problem) and the application of situated learning and whole-systems thinking (in the context of health and care, being aware of all the interacting parts of the health and care system when improving care rather than just a particular clinic, for example). However, connecting the need for situated social learning and whole-systems thinking to the specifics of an individual CoP takes time and requires, for some, a change of mindset from more conventional approaches to patient safety. For example, at the same event, the Duty of Candour CoP at its own session articulated arguably more conservative learning outcomes, such as appreciating why the duty of candour statutory obligation has been developed and why it is important to raise concerns, list the 'must do's' of statutory and contractual duties relating to the duty of candour, and utilise the duty of candour grading and consider if incidents meet the threshold. So at this earlier stage, we can sense a consensus around a spectrum of ideas about the issues the CoPs are best placed to address.

1.4. How and why are CoPs established in the healthcare sector?

A systematic review of 31 primary research papers and two systematic reviews, entitled 'How and Why are Communities of Practice Established in the Health Care Sector?' (Ranmuthugala et al. 2011), reported on the then-existing research evidence on this question. In brief, it found that the focus of CoPs in the healthcare sector had to some extent shifted from learning and exchanging knowledge to trying to improve clinical practice and facilitate evidence-based practice. Communication was important to all of the efforts described in the review, but despite there being a variety of approaches to communications there was no clear evidence about what communication had been used and how (if at all) it had helped achieve the objectives of the CoP. Finally, because of the variety of approaches taken and the complex circumstances in which CoPs operate, and despite a growing interest in evaluation over description, it was not possible from the available evidence to attribute observed changes to the CoP itself. Nicolini and colleagues (Nicolini et al. 2016) argue that over the past two decades, CoPs have especially been associated with initiatives to achieve multi-professional learning and access forms of knowledge and learning that cut across established professional and organisational boundaries. They go on to argue:

> Communities of practice resonate with health care professionals as they promise to foster mutual learning and knowledge sharing building on the affinities which stem from sharing the same work. The idea of communities of practice has thus achieved widespread currency internationally, both as tools for understanding how learning unfolds in health care settings and as a tool for promoting knowledge transfer and sharing, with studies on interventions reported in Australia, Canada, Denmark, the UK and the US… (Nicolini et al. 2016)

The wider evidence about CoPs therefore most frequently situates them as a response to the Berwick challenge: 'The most important single change in the NHS…would be for it to become, more than ever before, a system devoted to continual learning and improvement of patient care, top to bottom and end to end' (Berwick 2013).

Meanwhile, specifically in South London, in *A Call for Conveners* from mid-2015, the HIN defined CoPs as follows:

> Communities of Practice (CoPs) are self-organising and self-governing groups of people who share a passion for the domain of what they do and strive to be better practitioners. They pursue a shared learning agenda and they create value for their members and stakeholders through developing and spreading new knowledge, practices, capabilities and organisational capacity. They create knowledge networks across professional and hierarchical boundaries, and access the intelligence that is everywhere in the system. (Health Innovation Network 2015)

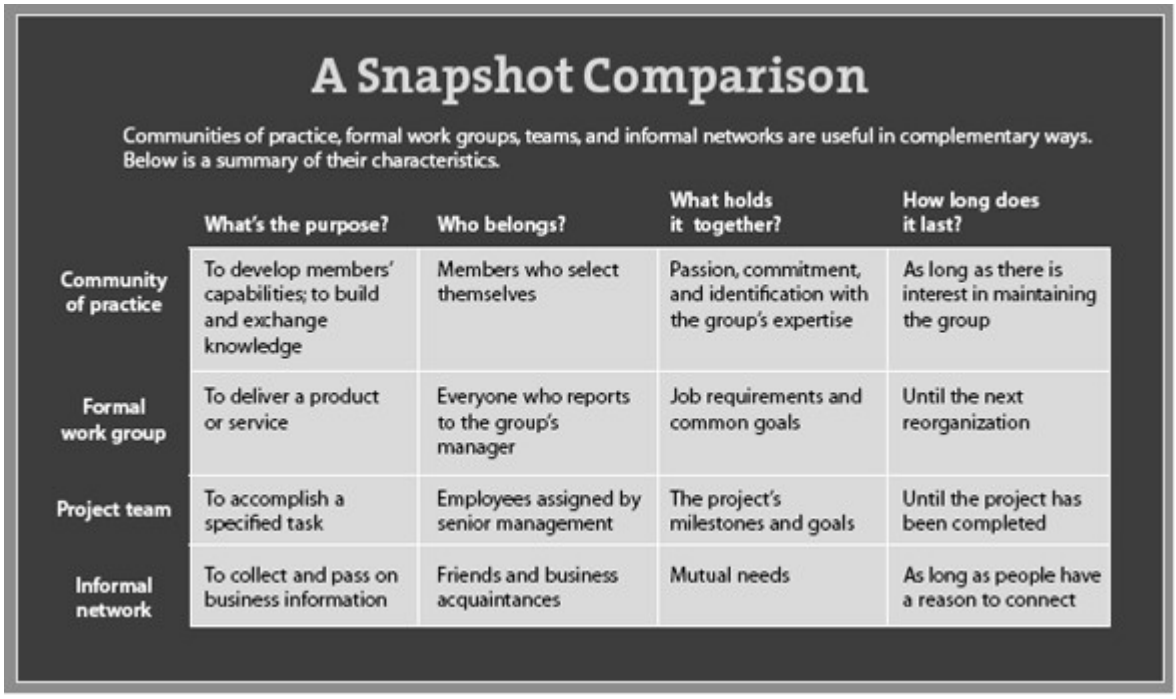
The document goes on to identify why the HIN was seeking to establish CoPs in South London and lists their aims:

> We intend to initiate a vibrant network of learning, experimentation and innovation in service to the work of Patient Safety Leads that will:
>
> - Support access to and collaboration with each other.
> - Create a safe forum for all those concerned with patient safety.
> - Be a place where people can bring their significant challenges without fear of judgement or blame.
> - Develop knowledge of the 'Promising Practices' emerging throughout South London, and wherever they occur in the NHS.
> - Be a true inter-professional community, in which people can explore their work as peers.
> - Become a platform for ideas and research.
> - Make the work of Patient Safety Leads and their colleagues visible.
> - Access the intelligence and experience that is everywhere in the system.
> - Change patient safety outcomes for the better in the short, medium and long term.

1.5. Locating the characteristics of CoPs in relation to other approaches

The HIN's definition of a CoP is quoted above. This view is compatible with that of Wenger and Snyder (2000), who compare the characteristics of a CoP with other approaches, as shown in Figure 3.

Figure 3. Comparing CoPs with other approaches



A Snapshot Comparison

Communities of practice, formal work groups, teams, and informal networks are useful in complementary ways. Below is a summary of their characteristics.

	What's the purpose?	Who belongs?	What holds it together?	How long does it last?
Community of practice	To develop members' capabilities; to build and exchange knowledge	Members who select themselves	Passion, commitment, and identification with the group's expertise	As long as there is interest in maintaining the group
Formal work group	To deliver a product or service	Everyone who reports to the group's manager	Job requirements and common goals	Until the next reorganization
Project team	To accomplish a specified task	Employees assigned by senior management	The project's milestones and goals	Until the project has been completed
Informal network	To collect and pass on business information	Friends and business acquaintances	Mutual needs	As long as people have a reason to connect

Source: Wenger and Snyder (2000).

From the literature (Lave and Wenger 1991; Wenger et al. 2002) and conversations with Myron Rogers (see section 1.7) and the HIN, our understanding is that CoPs are relatively distinct from formal working groups and project teams, but the differences in comparison to informal networks might be more subtle. Both have voluntarist and knowledge-sharing dimensions. Networks are arguably more instrumental, with a more direct focus on meeting the needs of the members. Conversely, CoPs are more about shared passion and less oriented towards meeting the needs of the members (although they may have this effect as a necessary part of their way of working). While networks are driven by meeting mutual needs, CoPs pursue a shared learning agenda and create value for their members and stakeholders through developing and spreading new knowledge, practices, capabilities and organisational capacity. They are intended to create knowledge networks across professional and hierarchical boundaries, and draw upon intelligence from elsewhere in the system. As Richardson (2016, 9) writes, 'Unusually, compared with ideas of the past, they are not driven by technological solutions but are rather being led by ideas…around the importance of the ways in which people work together in different contexts'. In particular they challenge a theory of learning in which knowledge is codified by experts, communicated by a teacher, and acquired as a set of skills to be routinely used. Rather, knowledge is seen to be continuously created through social practices and absorbing the 'culture of practice' (Lave and Wenger 1991). The art of creating CoPs, then, is in creating social settings within which this sort of 'situated learning' can be nourished and supported.

As Nicolini et al. (2016) write, 'In short, situated learning is associated with engagement, belonging, inclusiveness and developing identities rather than acquiring concepts and theories while sitting in a class'. CoPs therefore must speak not only to the rational evidence and formal knowledge but also to what is tacit, emotional, meaningful and related to members' sense of self.

Compared with the description of a CoP found in Figure 3, in the HIN CoPs there is a particular emphasis on the importance of cross-organisational learning and orchestrating connections among people who would not otherwise connect (so members may not simply 'select themselves'). Furthermore, and importantly, the HIN agreed that Myron Rogers would play an important role in coaching and facilitating both the conveners and the CoPs more widely. An acknowledged expert in this field,[1] Rogers places an emphasis on the importance not only of social and situated learning but also systems thinking and systems theory. This introduction of Rogers' particular experience and expertise from the beginning has shaped the way the discourse about CoPs has evolved, giving the South London CoPs a distinctive inflexion.

1.6. What does the evidence tell us about how well CoPs work, and how might this evidence be improved?

Thus, CoPs are associated with a sophisticated theory of learning, address frequently flagged problems of poor learning and improvement in health and care systems, have intrinsic appeal to practitioners seeking to improve their practice, and suggest a plausible approach to taking the practical steps required to achieve new ways of working together to address entrenched problems. Unsurprisingly, therefore, there is considerable interest in understanding the role that CoPs might play in the future transformation of healthcare.

However, the evidence for how well they work remains patchy. There are two reasons for this. The first is that to date the evaluation frameworks used have been insufficiently detailed and targeted to get to grips with the complex ways in which CoPs vary, interact with their environment and reinforce or undercut other initiatives which coincide in place and time (McKellar et al. 2014). There is also a line to be trod between implementing such an evaluation framework and not so over-scrutinising the way situational learning takes place that the thing being evaluated is ruined. The second reason is inherent in the idea of a CoP itself. Wenger's original conception and, as we shall see, the development of the HIN's CoPs both specifically encourage adaptation, celebrate passion and commitment, and recognise that communities will proceed at their own pace and will end when interest moves elsewhere. This means that we need to find ways of evaluating that avoid undermining potential for the success of the CoP, that may increase the chances of success, and which take into account that the approach taken may shift, that experiments that fail are part of a successful community, and that goals may change or be absorbed into other aims.

Improving the evidence base will therefore involve:

[1] Myron Rogers is a founder of The Phillips Kay Partnership, Ltd.; Chair of the Lankelly Chase Foundation; and co-author of *A Simpler Way* (Berrett Koehler Publishers, San Francisco). He has been a leader in the application of living systems theory to the challenges of complex social systems since the 1980s.

- Developing and sharing an evaluation framework that is fit for purpose.
- Understanding how the practice of evaluation and the practice of situated learning can be mutually supportive.
- Understanding what is to be evaluated if processes are unpredictable and immediate outputs vary.

The leaders of the South London CoPs are well aware of these challenges (hence their funding of the work presented here). In the conclusions of this report in chapters 4, 5 and 6 we will return to these three questions, drawing on what has been learned through this study.

1.7. What was the approach taken by the HIN to supporting CoPs?

The HIN's aim was to provide an environment in which CoPs can form, develop and deliver improvements. It provided a dedicated project manager to support coordination, build membership, support research and strengthen project leadership. The project manager also supported an online sharing platform and knowledge management as well as organising events and promoting CoPs more generally. Over time, the project manager is intended to help CoPs spread their learning and shape improvement across the national health and care system (including supporting bids for funding).

The HIN has also, as explained, drawn on the experience and support of Myron Rogers. Firstly, this approach is underpinned by five maxims coined by Rogers[2]:

1. People own what they help to create
2. Real change takes place in real work
3. The people who do the work do the change
4. Connect the system more to itself
5. Start anywhere, follow it everywhere.

Secondly, the approach recognises that CoPs develop through stages (rather than arriving fully formed). These stages are:

- Phase 1 Discover
- Phase 2 Unite
- Phase 3 Mature
- Phase 4 Steward
- Phase 5 Transform.

Each maxim and phase is supported by further details which have been outlined and discussed by the CoPs at their workshops and meetings and documented in various publications made available to the CoPs and wider stakeholders (see, in particular, Health Innovation Network (2016)).

[2] A sixth maxim was added later: The process you use to get to the future is the future you get.

2. Methods

2.1. Objectives

The purpose of this study was to be a scoping exercise for a potential, more systematic and complete future evaluation of CoPs. Its purpose was to collect and reflect on data to assess the feasibility of, and best approach to, a full-scale evaluation of CoPs. The data is also intended to provide immediate and useful evidence to help the CoPs improve their effectiveness as well as giving early indicators of their potential for success, and could feed into a framework for a later evaluation. The objectives of the research were set out in detail in section 1.2.

In order to maximise both insights and potential benefits from these research activities, it will be important for them to be independent but also embedded in the work of the HIN. By understanding the aims of the coaching provided, and through the workshops planned with two CoPs, we aim as far as possible to align the findings with practical concerns facing the CoPs in order to support their future work.

2.2. Approach

Our starting point was that the work requested by the HIN was similar to an evaluability assessment, with the addition of some initial evaluative data collection and more substantial plans for a full evaluation. Our approach was therefore guided by an influential literature review of planning evaluability assessments (Davies 2013) and a useful working paper containing practical guidelines (Craig and Campbell 2015). The key elements of an evaluability assessment are engaging stakeholders, developing a theory of change (ToC), reviewing existing literature and data sources, and making recommendations.

The project went a little further than an evaluability assessment, with a clear evaluation framework and an initial survey of CoP members. Our preferred approach to evaluating complex interventions is influenced by the most recent Medical Research Council guidance (Moore et al. 2015). This approach is based around four key themes, exploring the context of an intervention, its implementation, its mechanisms of impact and its outcomes.

Our experiences of working on this project prompted further thoughts on what an evaluability exercise of a CoP might look like and, similarly, what an appropriate evaluation framework would include. We reflect on these points when discussing the evaluation framework later in this report.

2.3. Methods

The work was broken down into the following tasks (further details are provided in the relevant sections of chapter 3):

Document review of materials provided by the HIN and by Myron Rogers, to gain an understanding of the background, purpose and working methods of the CoPs. In practice we extended this to include a brief review of systematic reviews and literature reviews on CoPs in healthcare, primarily in order to prepare for a future application for further funding (chapter 1).

Semi-structured interview with Myron Rogers to build an understanding of his methods and aims, their contribution to the overall goals of CoPs, and any ideas for measuring the achievement of these goals. Building on the document review, this helped us to develop an initial ToC that was explored further with the CoPs.

Workshops with two CoPs to understand their aims and working methods. These took place on the same day at a day-long conference at the HIN offices. These workshops allowed us to refine the initial ToC (section 3.1).

Semi-structured interviews with HIN and system leaders to identify what they hoped that CoPs would achieve and how they would benefit them, to define outcomes for the programme, and to learn their initial views on the programme's potential for success (section 3.2).

Survey of CoP participants based on the ToC. The HIN helped identify respondents and find contact details, and sent out a link to the survey and reminder emails (section 3.3).

Synthesis of findings, evaluability assessment and evaluation framework. This summarises what we have learned from the research activities described above and brings out the most relevant findings for our assessment of whether CoPs are ready to be evaluated, how they can further their evaluability, and how they should be evaluated.

Desk research into funding opportunities for a full evaluation.

3. Summary of findings

In this chapter, we outline the findings from the research activities that we carried out for this project. As well as providing some practical insight into how the CoPs have operated so far and how they could be run successfully in the future, they also provide a base for potential future research, which we outline in later chapters. These wider questions are picked up on in the 'Commentary' sub-sections of each section. However, it is very important to note that the data collection for this summary took place in the summer of 2016 at a time when the CoPs were still at an early stage in their development. It is therefore a snapshot of a particular moment in time.

3.1. Workshops

3.1.1. Summary of CoP workshop discussion at HIN event, 22 April 2016

Which problems are CoPs most suited to address?

It was noted that not all domains (the problem areas that drive a community) are suitable for a CoP. There was a rich seam in the discussions which touched on this question – sometimes tacitly. It was suggested that CoPs may be especially appropriate for problems where 'barriers are locked in in different parts of the system' and which are caused by quite subtle and cultural drivers. This was because they were seen to be good at addressing problems caused by fragmented systems, distrust or poor inter-professional dialogue. These problems may not even be very apparent or visible to those outside and even some in the system. Problems can be made worse when difficult conversations are avoided and so remain submerged. Similarly, data collection may fail to capture the full depth of the problem (sometimes because only the tip of the iceberg appears in the quantitative data). However, these problems have real and significant consequences for both staff and patients and their families.

CoPs may also be especially appropriate where a rapid alignment across professional groups is required that might be hard to deal with as a managerial task. For example, improving performance may depend upon ensuring that the knowledge and intuitions of front-line staff can readily inform a process of escalation.

Above all, CoPs were felt to be especially appropriate where it is reasonable to assume that 'the solutions can all be found in this room'. That is to say that the knowledge that is required to improve the situation (which may be tacit or informal, intuitive or experiential) can be found within the CoP itself.

Commentary

The views of the two groups contrast with other approaches to improving quality, making an interesting topic for further research. For example, Plan Do Study Act (PDSA) cycles may be less helpful where 'barriers are locked in in different parts of the system' or where the solutions lie in the emotional intelligence and professional identities of those involved in delivering improvement. PDSA approaches are less well oriented towards building a network of relationships across organisational boundaries and less concerned with peer-to-peer learning. Approaches to build whole-systems solutions (such as improving patient flow, for example) include (like CoPs) an emphasis on human interaction and building trust, but they also depend upon an ability to quantify improvement, for example relying on run charts and other statistical data to support improvement. What might be more interesting than asking whether CoPs 'work' or not might be to ask how – or if – CoPs can be successfully integrated with other approaches to improving quality without losing their essential characteristics.

Similarly, it was also interesting that the groups commented that CoPs can address problems which cannot easily be dealt with as a 'managerial deliverable'. According to the workshop participants, the effectiveness of CoPs, by contrast, is built on learning among peers. In other words, there may be a class of problem which is poorly addressed using conventional management techniques. For example, CoPs emphasise a structure of 'start anywhere, but follow everywhere' and this fits badly with conventional project management. Furthermore, alternative quality improvement approaches often have a pre-designed, structured 'pathway to impact' (repeat the PDSA cycle, introduce flow coaches, etc.) while by contrast, CoPs might be well placed to address problems that are distributed across organisations and levels of the hierarchy and are at no point well or fully understood. This might result in a situation where the outcomes are worse than they could be, even when each part of the system does its job well. Such problems would be less amenable to improvement through more traditional QI or managerial approaches. Narani Sivayoham, convener of the Sepsis CoP, makes this point well, saying: 'Many of us are putting systems into place to recognise sepsis early but face barriers, which are usually due to system failures. Coming together as a community will help us share ideas and move away from silo working and overcome barriers' (Health Innovation Network 2016).

Myron Rogers' argument that cultivating CoPs should include developing a 'systems' approach is reflected in these comments and also in concerns that 'barriers are locked in in different parts of the system'. According to this perspective, solutions require building trust across different parts of the system and CoPs are especially relevant where the system needs to become better connected to itself. This generates important evaluation questions in relation to whole systems:

- Do CoPs explore problems from a systems perspective; do they identify solutions that can work across the whole system?
- Do they promote dynamic and situated networks?
- Do they inspire situated learning; and do they foster more system-wide planning, evaluation and research?[3]

[3] Similar questions are asked – but not answered – in WHO (2009).

How were the CoPs initiated and set up?

As described above, the HIN provided the impulse and organisational platform for setting up CoPs but the leadership of founding conveners was also important. Once established, the approach taken to developing membership can best be described as 'structured opportunism'. The groups highlighted an element of serendipity where individuals heard about the CoP in unstructured ways, but also a deliberate pursuit of individuals with certain skills or locations within the network. Groups recognised the importance of including commissioners and clinicians in CoPs but recognised the difficulty of this.

Early energy and enthusiasm depended on practical supports (such as leadership, communications, a space to meet), symbolic elements (including refreshments) and a culture of openness and trust. All of this led to members who felt 'invested' in change. Face-to-face meetings were critical at this early stage.

Individuals chose to engage because they could see there were problems and wanted to better understand 'what the issues are'. They were reassured to realise they were 'not alone'. They felt they not only 'gave' to the CoP but also benefited in their working lives. It was also suggested that these benefits might go beyond the particular domain of the CoP itself. Individuals clearly felt both connected and listened to.

Commentary

Both individual enthusiasm/leadership and organisational support are evidently needed to establish CoPs. Participation is driven by the sense that individuals identify there is a problem that is beyond their personal power to either fully understand or resolve. They thus feel invested in participating. From the earliest point there was also a recognition that it would be important to include certain voices in the room to ensure that knowledge from across the whole system was present. This matches the design principle, articulated by Myron Rogers in the plenary session during the event, that there should be a balance among structure, process and system.

Evaluation questions arising from this concern:

- What resources are needed to establish CoPs and how reasonable is it to expect that these can be generated spontaneously?
- What sort of leadership is required to set up and establish a CoP?
- What support is needed in an initial phase and how could it be phased out?
- Have the CoPs been able to ensure an adequate representation of different voices in the room?

How will the CoPs be sustained?

There was considerable clarity and agreement about what is needed to sustain CoPs in the coming months and years. Visible, quickly fed back, positive achievements are needed to sustain participation of members and buy-in from stakeholders (especially employing organisations). Communication will need to continue to develop, with clarity around meeting cycles and a good rhythm to learning and information-sharing activities. There was a broadly shared view that while face-to-face meetings had been critical to launch the CoPs, these would need to be supplemented with a growing virtual platform as the CoPs grow and develop. There were anxieties about having sufficient organisational capacity and the preferred solution to clone the project manager was recognised as unrealistic.

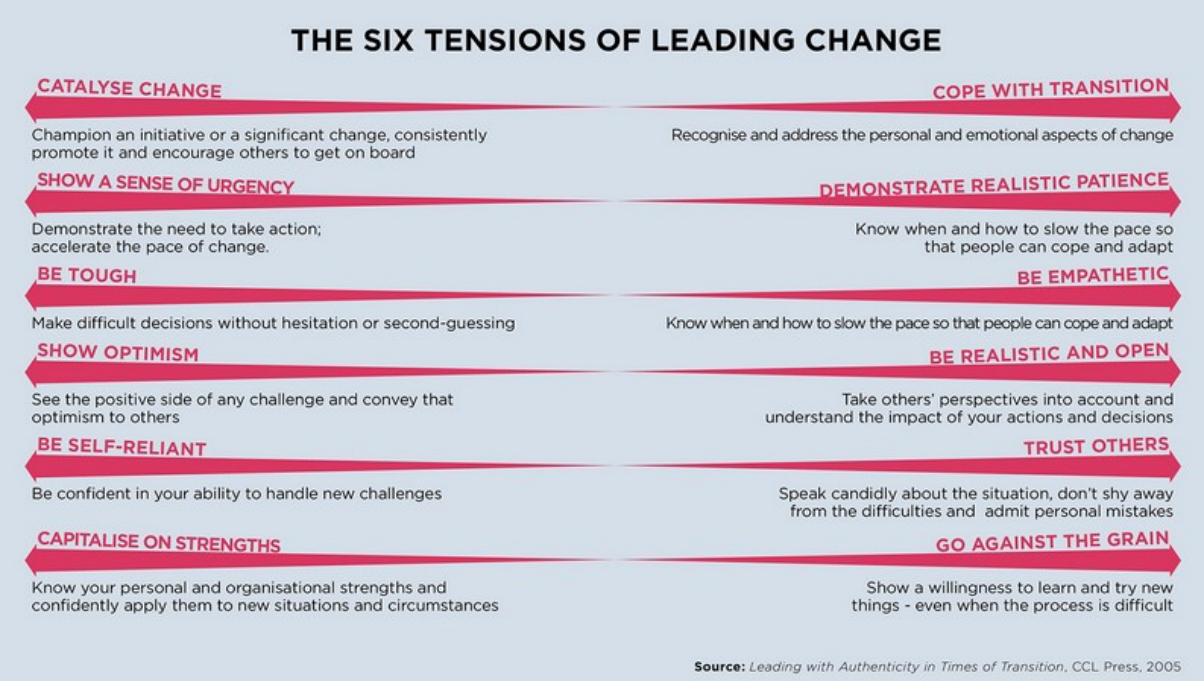
Good data was thought to be critical in sustaining CoPs. This might take the form, for example, of audit-like evidence to understand progress within the domain and to shape problem identification. This would permit more explicit prioritisation and, building on this, an action plan. Finally, the issue of data was raised by the groups – both to learn and prioritise within the CoPs and to secure support from outside. The sorts of data to collect identified in the discussions included:

- One-day audit of incidents as a snapshot, as many incidents are currently not counted, creating possible problems of simplistic approaches to measuring impact.
- Content analysis of the relevant sections of Board minutes and Board decisions – how is your domain reported?
- The experiences of families.
- The experiences of staff.
- NHS staff survey (for example 'Would you report an incident?').
- Patient online activity.
- Costs related to litigation and staff time (or consider using the NHS Authority Premium as a proxy for this).
- How (a relevant sub-group of) complaints are followed up.

Commentary

The groups described a process of transition from recognising there was a shared problem and potentially a shared set of solutions to thinking about how to develop a clear sense of direction and prioritisation, without losing the sense of the CoP being a safe place where relationships could evolve and where improvement was not just a 'management deliverable'. This is part of what Levknecht (2015) has described as a tension in delivering change, but she argues that the art is in drawing on the positive aspects of each end of the tension and minimising the negative (she describes this as 'polarity mapping'). Other tensions in delivering sustained change she identifies are outlined in Figure 4 below.

Figure 4. The Six Tensions of Leading Change



Source: As on figure, via Bevan (2015).

An important evaluation question would concern:

- How well do CoPs handle these (and similar) tensions, and in particular how do they do so as they move along all five phases towards maturity?

For example, they might manage these well at phase 1 (discover) but less well at phase 5 (transform).

Achieving transformative system change

The groups used the language of 'infiltrating' targets both for a top-down and a bottom-up approach. There was said to be a good understanding of where the 'blockers' and where the supporters were and an aspiration to work with 'leaders at all levels'. Within this there was also explicit recognition that some groups in the system were harder to reach than others – commissioners and medical doctors were mentioned in particular – and would require particular attention. Board buy-in was also felt to be important.

The ambition for wider system change went beyond the local level, with a view that the CoPs should also think about national system change. In this context, it was felt that the behaviour of regulatory bodies could become supportive rather than (as at present) a barrier.

Commentary

The pathway to transformative system change is known to be challenging. Groups talked of achieving such change by targeting key individuals most likely to support it. Demonstrating progress is critical to achieving system-level change. This includes (as Myron Rogers put it) providing the 'members with access to the intelligence that is already in the system' and revealing changes to others that might be both subtle and intangible (improving trust, having difficult conversations).

Achieving transformative system change is a key aspiration in the UK's health and social care system. The potential role of CoPs in delivering this is under-researched and little understood, and further work in this area could be helpful. The key evaluation question is:

- (How) can CoPs contribute to transformative system change?

3.2. Interviews

We interviewed five local healthcare leaders:

- Adrian Hopper, clinical director of the HIN Patient Safety Collaborative.
- Kate Grimes, independent consultant, recently retired CEO of an acute trust and formerly the Senior Responsible Officer for Patient Safety within the HIN.
- Tara Donnelly, chief executive of the HIN.
- Tony Read, chief financial officer at Lewisham Clinical Commissioning Group.
- Zoe Lelliott, director of strategy and performance at the HIN.

We note that three of the interviewees were current senior managers at the HIN, responsible for funding the programme, while another was a member of a CoP: these interviewees might have an interest in the programme being seen to be a success. On the other hand, in an environment of constrained funding it could also be argued that funders might welcome the opportunity to cease funding programmes. In any case, as is the case with all interviews, these findings should be seen as the views of observers who are unlikely to be disinterested, and indeed our aim was to seek the views of those who were looking for organisational benefits from the CoPs. We also note that the selection of interviewees was suggested by the HIN, although we did confirm the list ourselves as it included stakeholders from inside and outside the HIN and with and without financial responsibilities.

As suggested by chapter 1, there was a generally positive attitude towards CoPs and optimism about their chances of succeeding. Views about how the CoPs should operate and achieve their aims varied (partly driven by how familiar interviewees were with the CoPs). In particular, there were differences about how time-bound the CoPs should be and the extent to which they should be tied to delivering specific goals (as opposed to more generic learning and improving). All agreed that it was important to demonstrate success, suggesting that identifying 'early-wins' might be tactically important.

Three interviewees held the view that CoPs were about solving specific problems in a specific period of time, and that once a problem was solved the CoP would have no further use. Within that group, though, there were differences of opinion as to whether this was achieved directly through improvement methodologies, or indirectly by improving the capacity or changing the culture of the relevant part of the system. However, even in the former case, the strengthening of networks, especially across existing barriers, was seen as a benefit of CoPs. The other two interviewees were more open to some CoPs reaching a natural conclusion, and some continuing as long as they continued to be of benefit to members.

All interviews recognised the need for CoPs to produce demonstrable benefits. For some, this was because this was in itself the purpose of CoPs, but for others the main purpose of CoPs was more intangible, and

the demonstrable benefits important more to keep the group internally motivated and externally supported. One interviewee was cautious about CoPs' ability to demonstrate results in this way even if they were actually being useful.

One interviewee made the point that CoPs themselves might not have a well-defined path to impact: that how problems are identified and solved depends on the nature of the domain, the problems identified and what changes are to be made. However, CoPs are about relationships, so influence might always be a key part of the process, whether through sheer strength of numbers or access to particular individuals. Another echoed this, describing a key function of CoPs as being to surface and disseminate evidence as well as recognising where the evidence base is insufficient. Similarly, a different interviewee believed that CoPs operated mainly through members providing each other with mutual support, while also focusing on the importance of having influence at a senior level.

Interviewees recognised the support that CoPs had needed from the HIN (principally organisational) and employers, and that the time members are able to sacrifice to CoPs is critical. One interviewee also talked about the commitment that CoP members needed outside meetings back in their organisations to champion the work of the CoPs and help bring about change. Although not addressed directly, this was consistent with other interviewees' comments about the influencing role of CoPs.

Commentary

The interviews highlighted how different a CoP looks from the outside – even to those working in related areas. The interviewees often had little knowledge of CoPs and even less understanding of their distinctive ways of working – what they might or might not offer. The comments about their role could broadly be applied to any area of change. This raises the important evaluation questions of:

- How far do CoPs influence and inform their wider environment, and does this matter?

3.3. Survey

We conducted a survey of CoP participants. We distributed it to 169 participants and received 35 responses (although this varied for individual questions), an overall response rate of 21 per cent. We distributed the survey on 31 May 2016, and sent a first reminder on 6 June and a final reminder on 14 June. There is likely to be significant selection bias, with respondents likely being the most (and potentially the least) enthusiastic about CoPs and their impact. Thus, the survey provides us with a useful summary of the views of those involved in CoPs but it may be that the respondents were among the most committed members of the communities.

3.3.1. Respondents

In this section we briefly describe who responded to the survey.

Figure 5 shows the domains of the respondents' CoPs. Acute deterioration, duty of candour and maternity were the CoPs with the most respondents.

Figure 5. Respondents' CoP domains

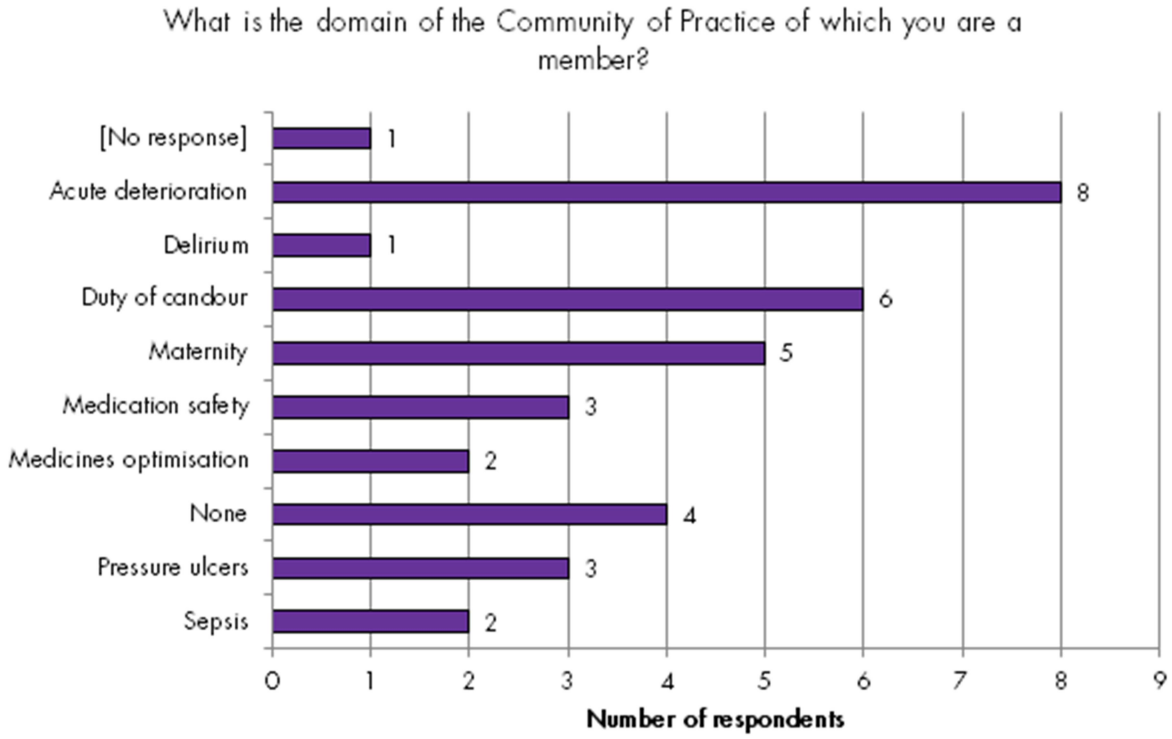
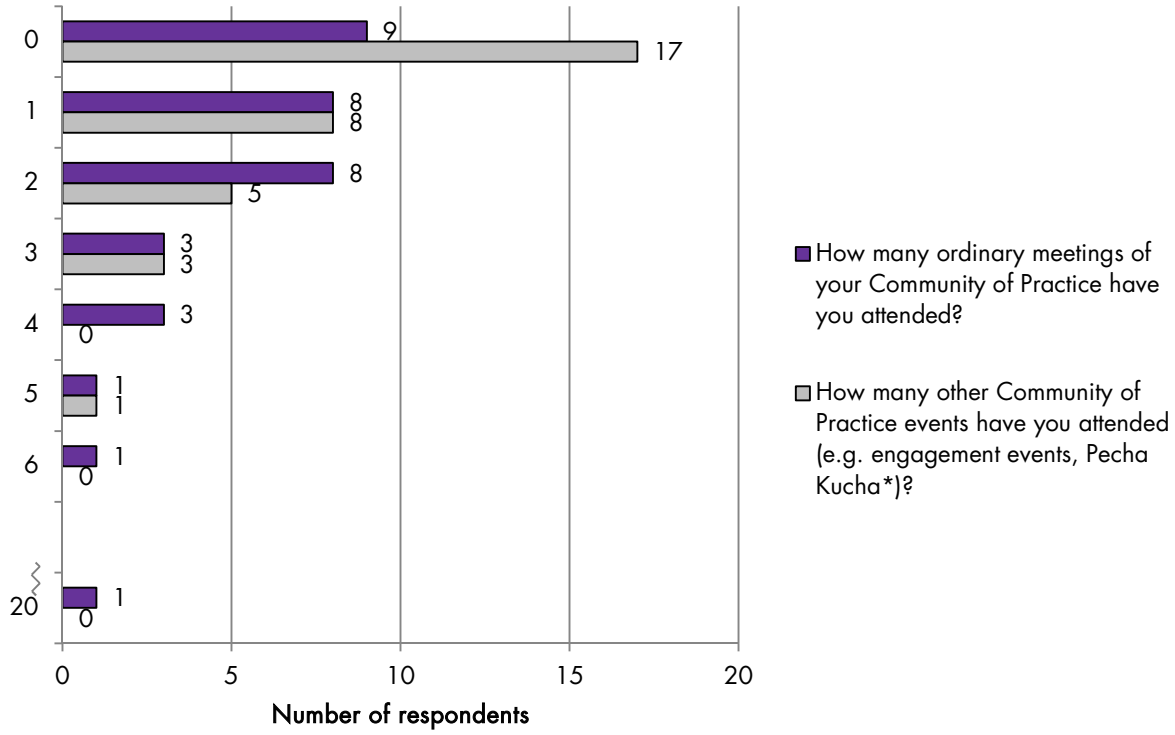


Figure 6 shows the number of ordinary meetings of CoPs that respondents had attended, and the number of other events. Around a quarter of respondents had not attended any ordinary meetings, with half attending one or fewer and half attending two or more.

Figure 6. Respondents' meeting attendance



* Pecha Kucha was an event where CoPs gave short presentations to bid for funding for small projects.

Figure 7 shows how often respondents reported their CoP time being unpaid. For slightly more than half, it was at least sometimes unpaid.

Figure 7. Frequency of CoP work being unpaid

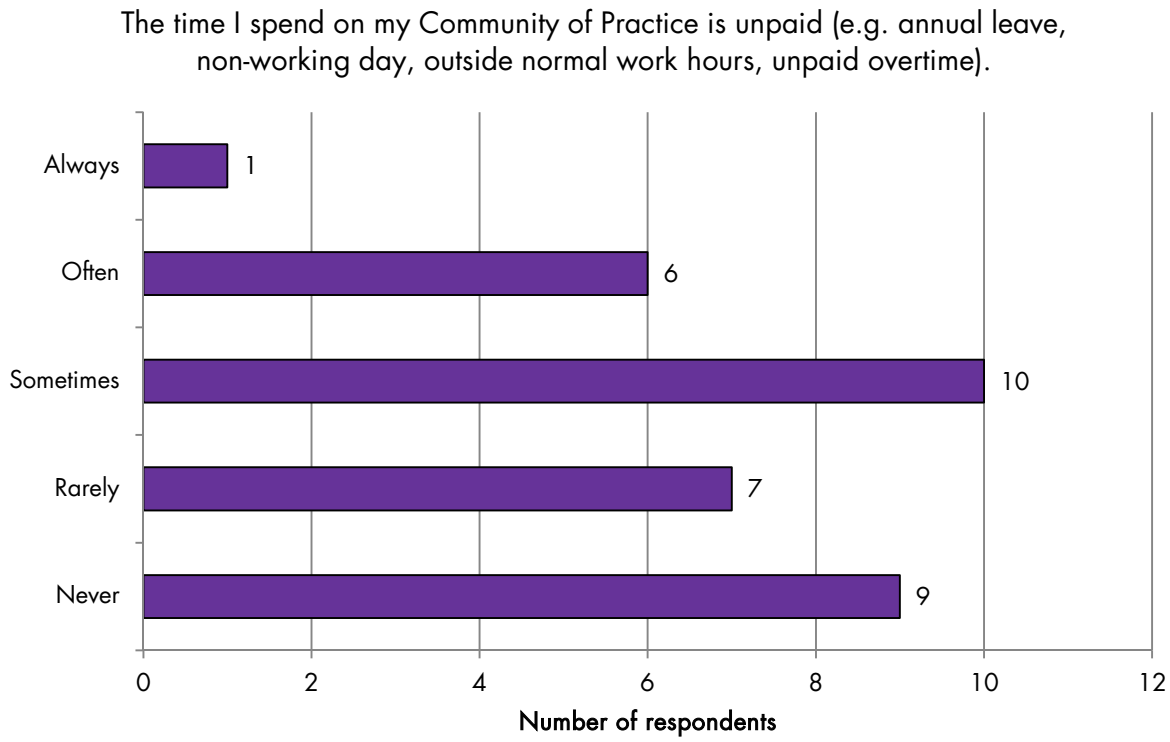


Figure 8 shows the professional backgrounds of respondents, which were dominated by nursing.

Figure 8. Respondents' professional backgrounds

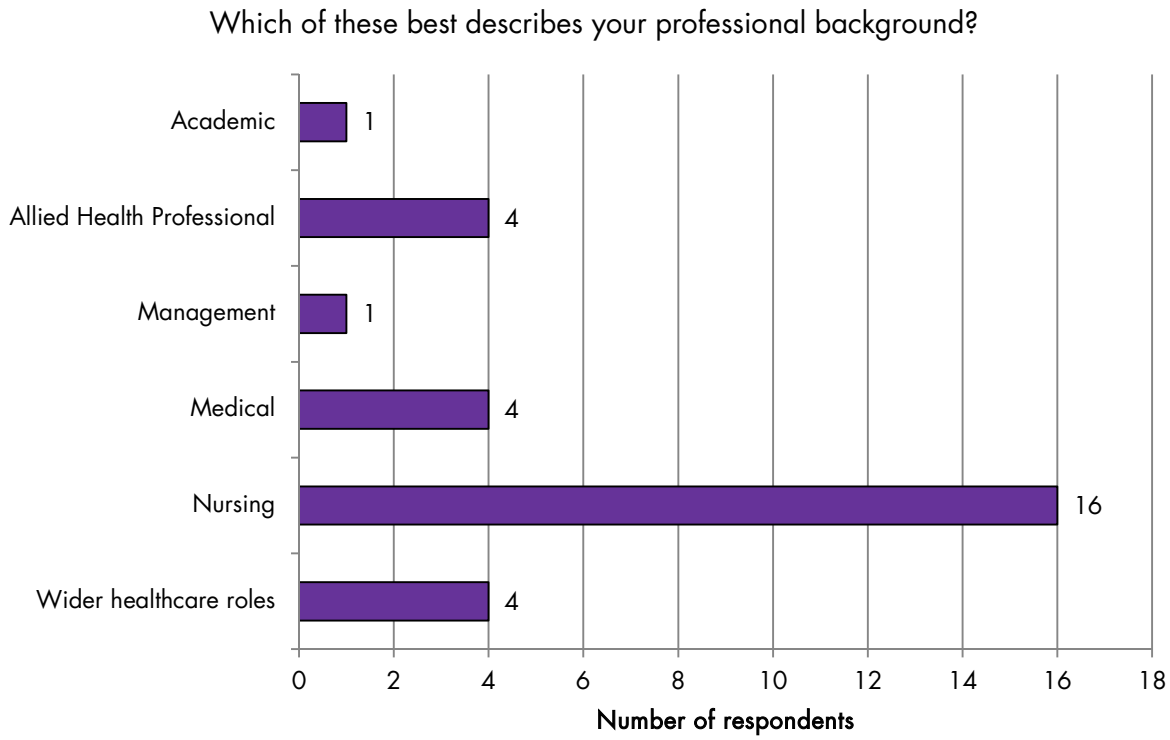


Figure 9 shows the operational groups in which respondents worked. Again, nurses and midwives are the most represented group.

Figure 9. Respondents' operational groups

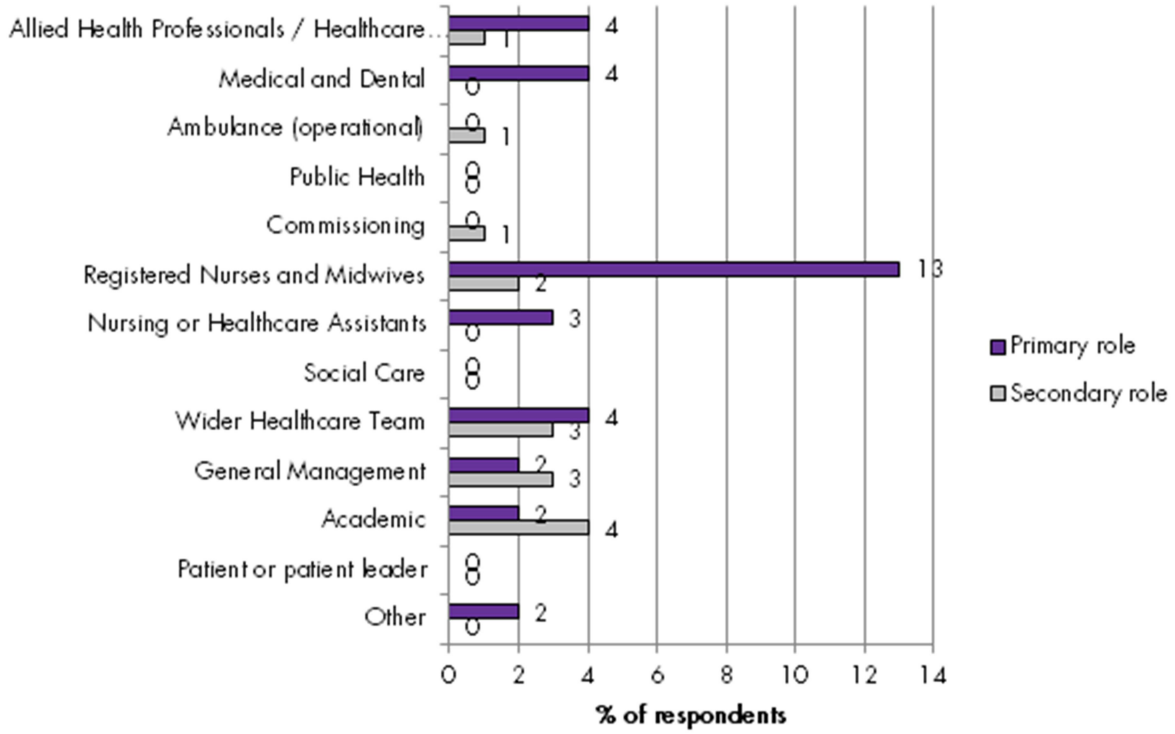


Figure 10 shows the hours that respondents work. Almost all work at least 31 hours per week and carry out ten or fewer hours of unpaid improvement work per week, with varying amounts of paid improvement work.

Figure 10. Respondents' working hours

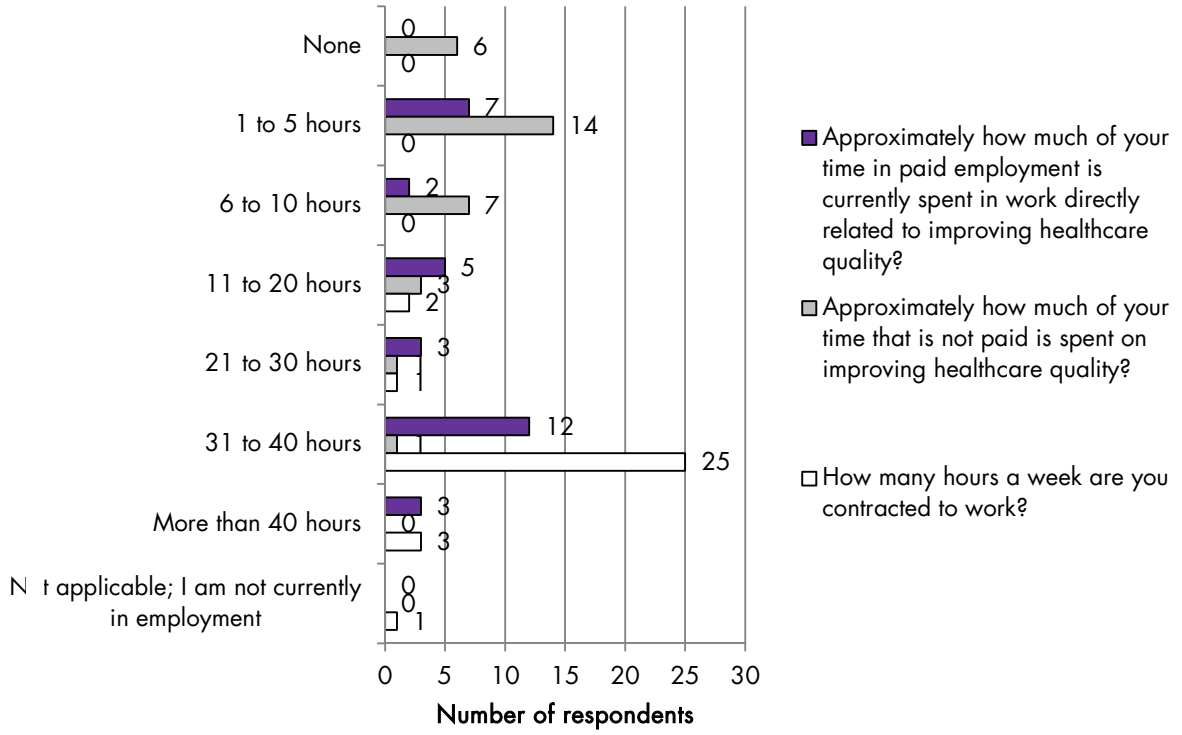


Figure 11 shows how often respondents have face-to-face contact with patients and service users. Most have at least some contact.

Figure 11. Face-to-face contact with patients and service users

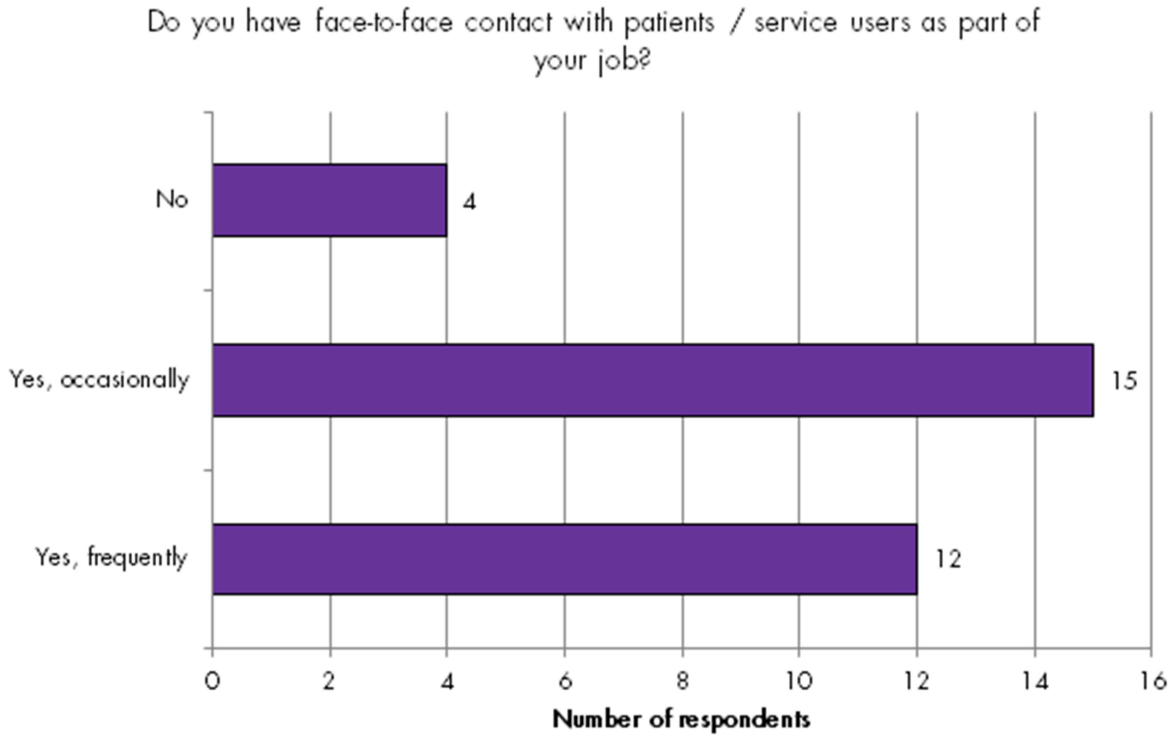


Figure 12 shows respondents' incomes as a proxy for seniority. Incomes are fairly spread, with just under three-quarters of respondents earning less than £60,000 per year (excluding those who preferred not to say).

Figure 12. Respondents' incomes

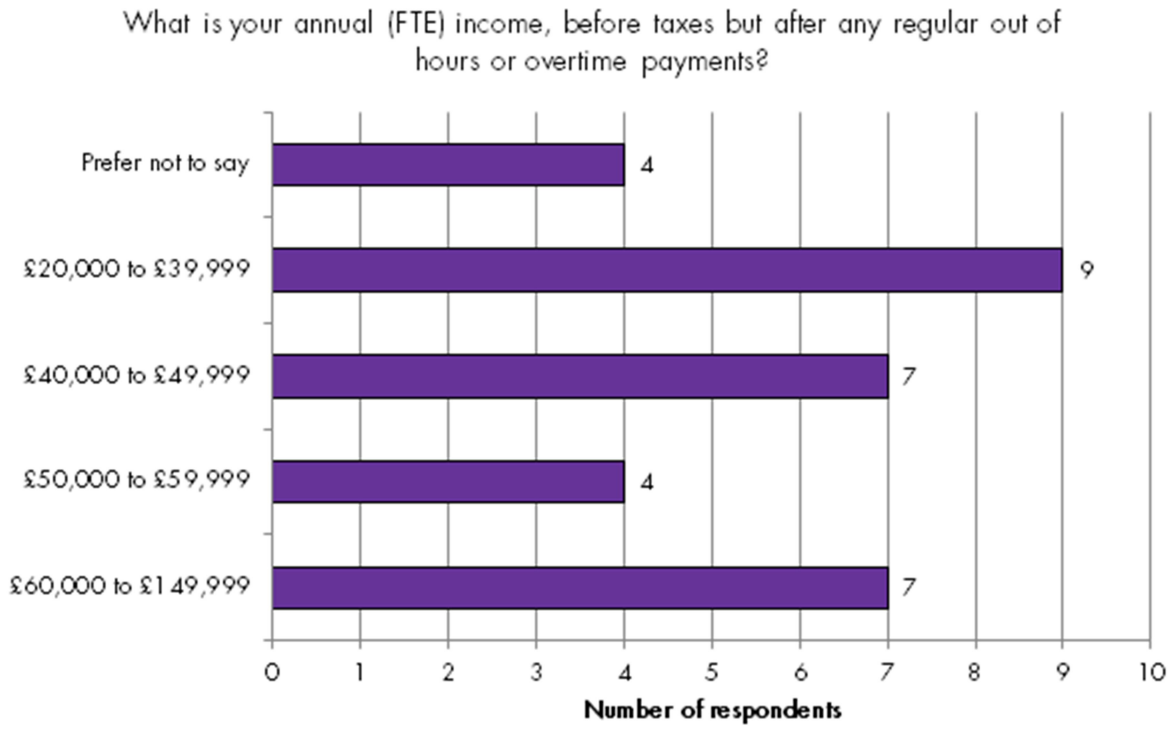


Figure 13 shows respondents' ages. As with income, ages are fairly spread, with 35 to 44 and 45 to 54 the best-represented categories.

Figure 13. Respondents' ages

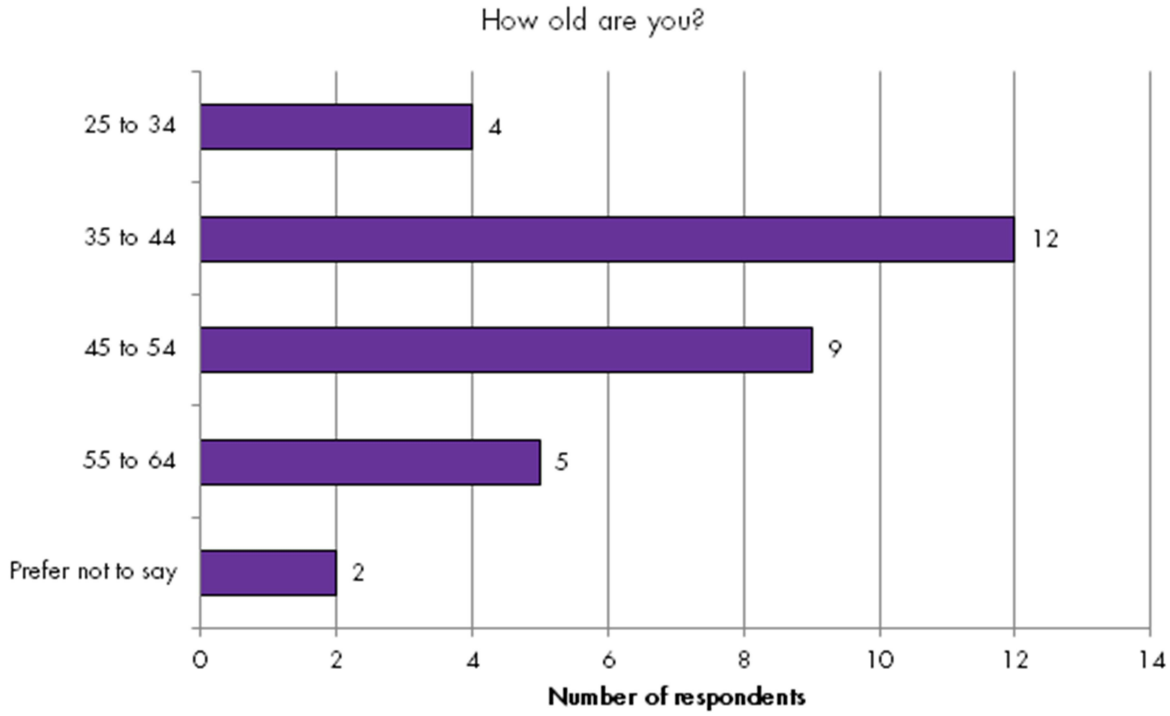
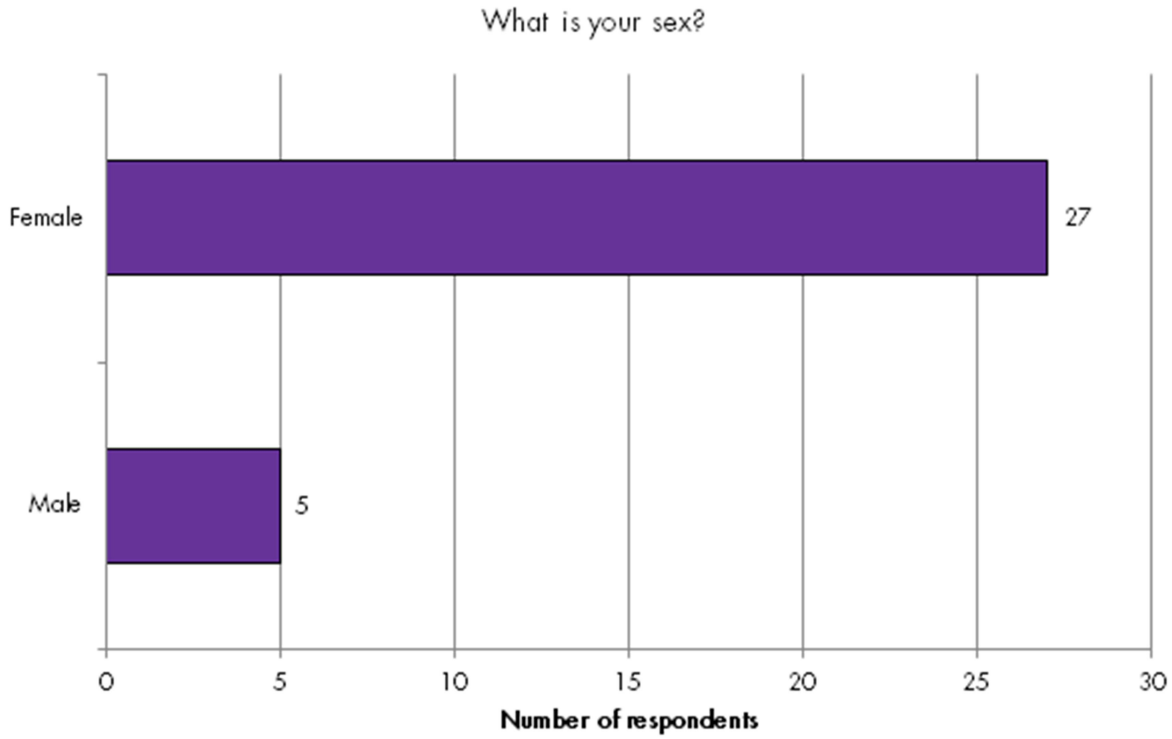


Figure 14 shows the sex of respondents. Over four in five respondents were female.

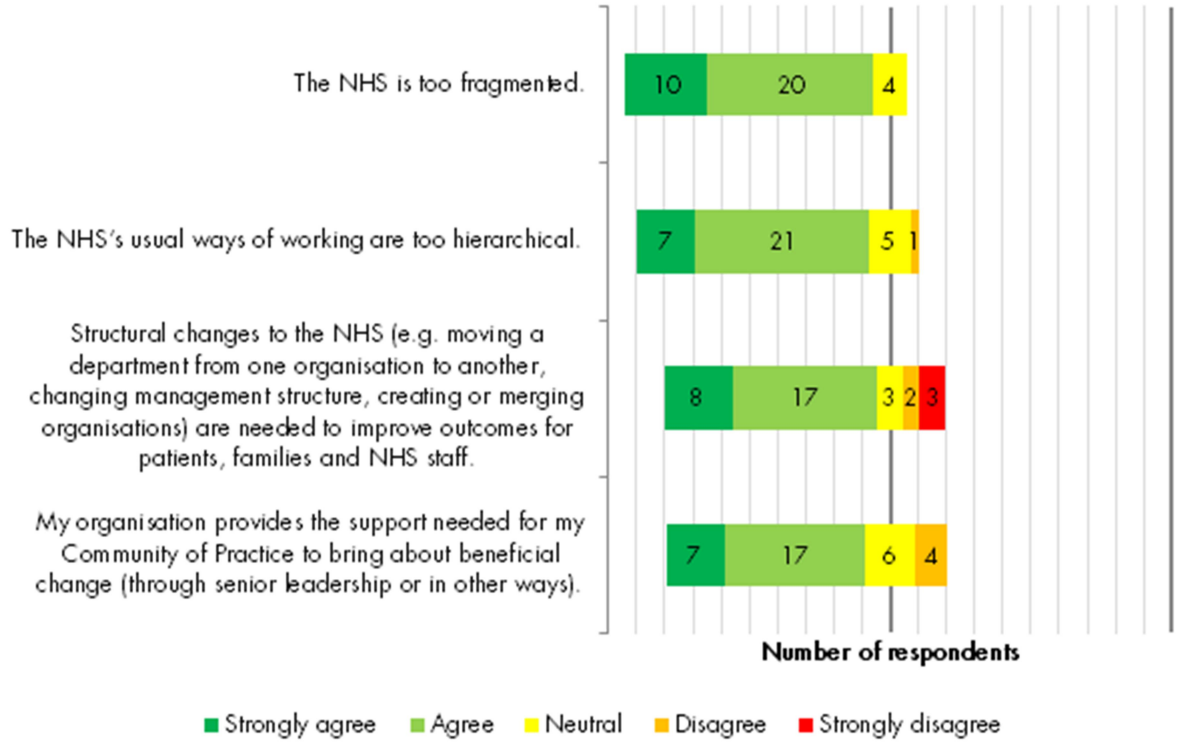
Figure 14. Respondents' sex



3.3.2. Findings

First, responses showed that participants believed the NHS to be too fragmented and too hierarchical, with a clear but slightly less substantial majority believing the NHS to need structural changes to improve outcomes for patients, families and NHS staff.

Figure 15. System conditions

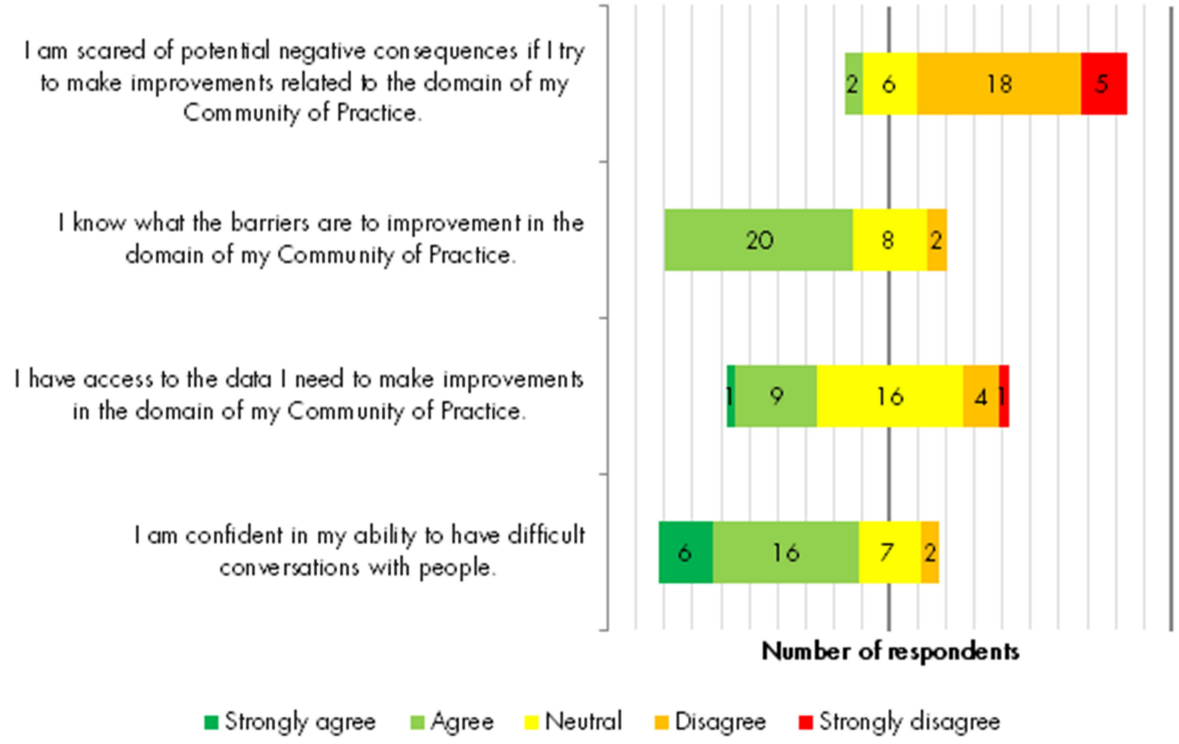


Commentary

It would be interesting to follow this up with further research that explored whether or not those drawn to work in CoPs hold views about the problems facing the NHS that are widely shared by others in the organisation. In other words, are CoPs especially attractive to a particular subset of the NHS and, if so, in what ways are they distinctive? One of the intended benefits of CoPs is that they transform relationships without the need for structural changes. Although this statement had more disagreement than the others, this could be an indication that CoPs are not sufficient, on their own, to help participants meet the challenges they face, or that respondents have not yet come to see this benefit.

From our interview with Myron Rogers and wider reading, we identified a number of potential barriers to explore through the survey. Of those that we asked about explicitly, access to data was the most significant.

Figure 16. Barriers for CoP work



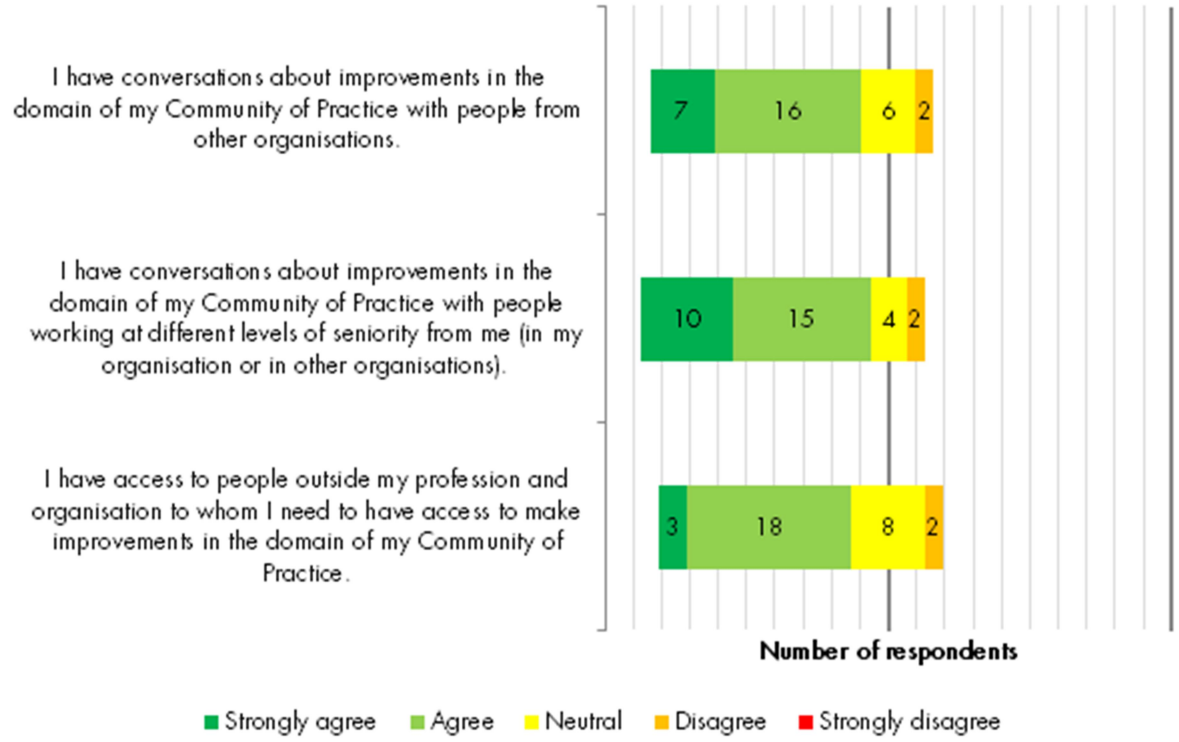
Commentary

In other projects we have found that, along with lack of time, access to data is one of the most commonly cited problems for people working in improvement.[4] In this work on CoPs we see that there is room for improvement with access to data, but in the softer areas survey respondents did not face as significant barriers.

[4] For example: Garrod et al. (2016).

Overall, respondents generally reported being well connected in the domains of their CoPs, particularly in having conversations with people from different organisations or at different levels of seniority.

Figure 17. Respondents' connections for CoP work

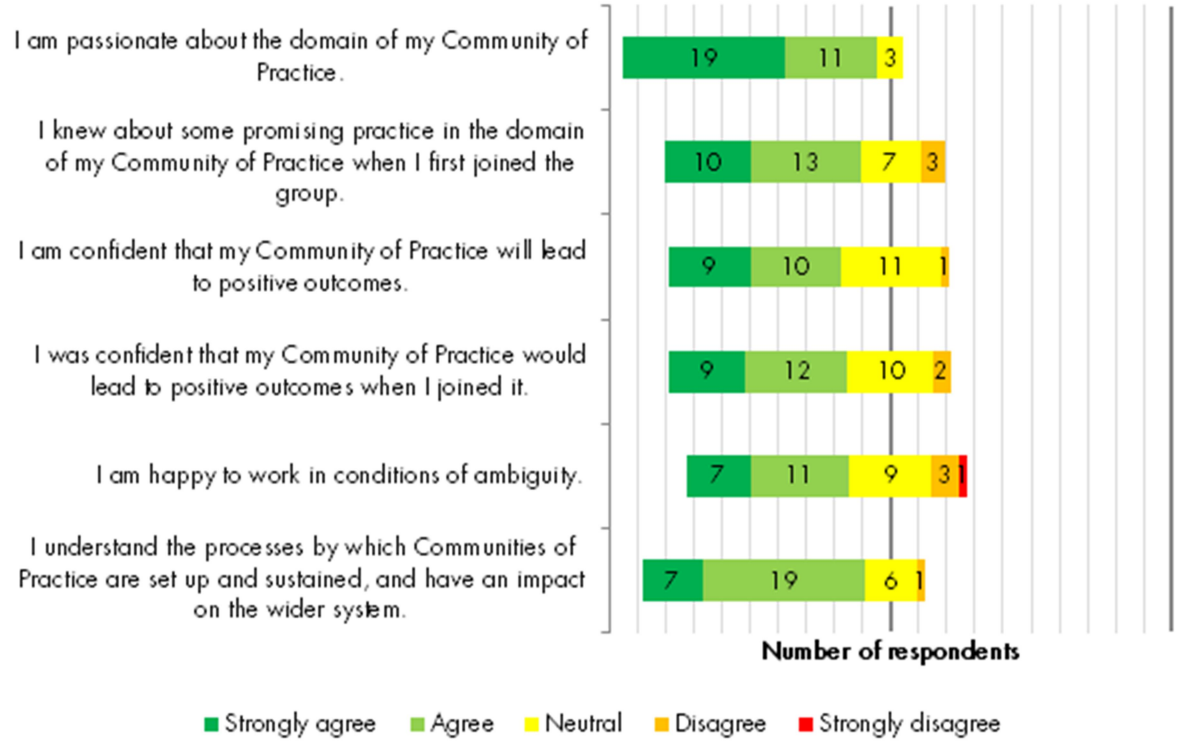


Commentary

One of the key intended functions of CoPs is to bring together people who might otherwise not work together, particularly going across natural barriers of organisation, seniority and profession. Respondents appear to be in this position. What the survey data does not show is whether CoPs have aided these connections or how they are used.

The survey showed that participants were passionate about their domain but a little more neutral in their confidence that it would lead to change. There was much less certainty that the CoP would be wound up once the problems currently focused on had been achieved. They also felt confident that the CoPs could contribute to local and national change.

Figure 18. Attitudes in CoPs

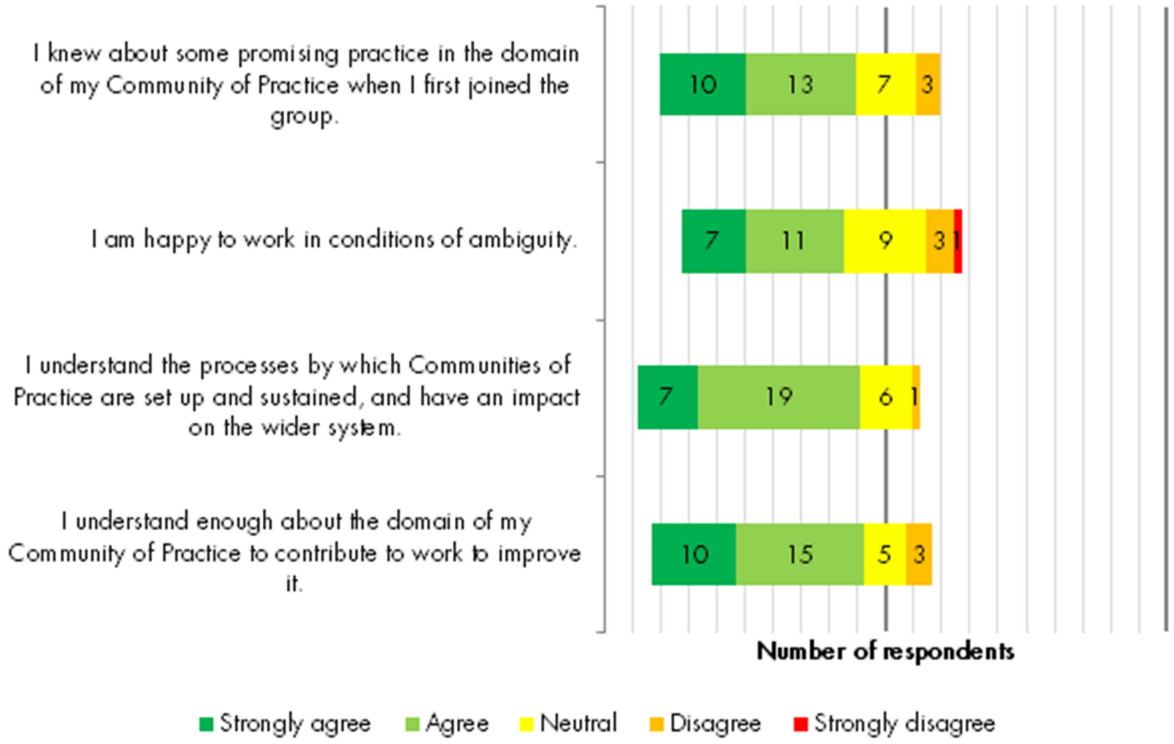


Commentary

Participants' level of confidence that they could improve quality in their local setting in their current roles (and to some degree also at national level) is striking in an NHS where there is widespread anxiety that staff have been disempowered. In further research we could explore whether CoPs are particularly attractive to people already possessing such confidence or whether the latter is promoted by the experience of being in a CoP. If the latter holds, how might confidence be reinforced or undercut by the experience of being part of a CoP? Equally, is being passionate about one's domain a reason for joining a CoP or a consequence of being part of one (or a self-reinforcing cycle)?

In terms of personal attributes, participants were confident in their knowledge and experience in their domain and in CoPs. Some participants were averse to working in conditions of ambiguity.

Figure 19. Personal attributes for CoPs

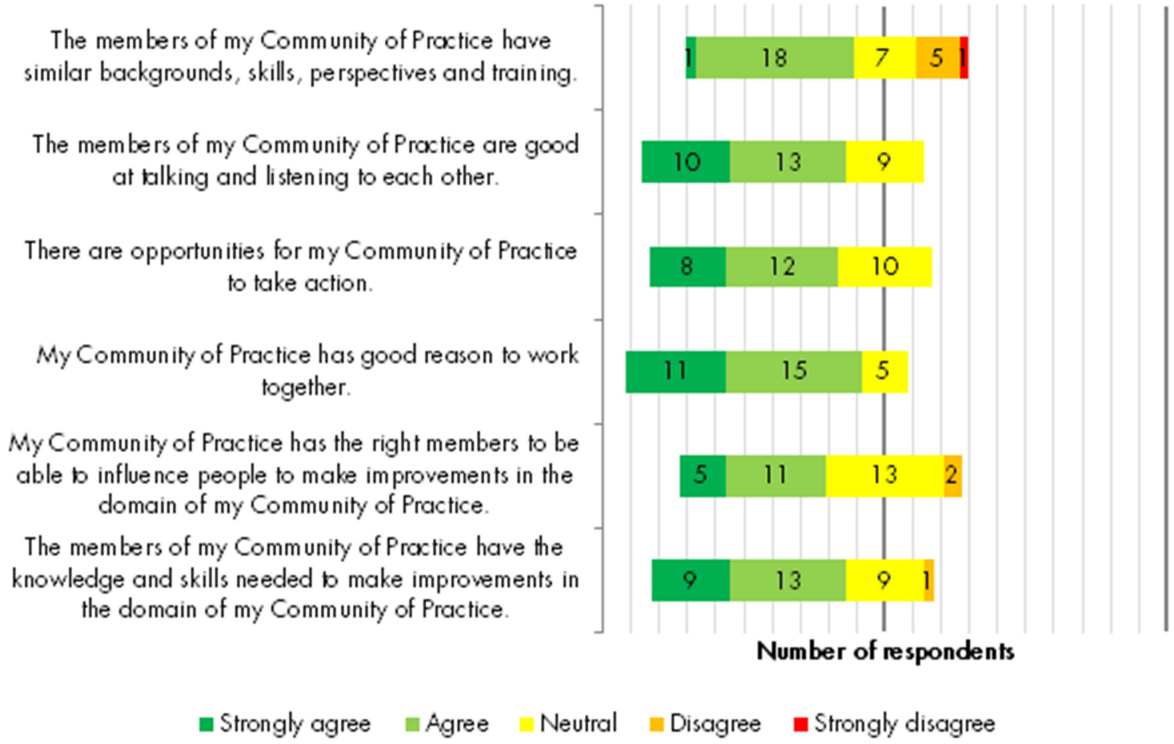


Commentary

The key question here concerns the importance of mentorship and coaching in CoPs. Do participants need certain qualities to maximise the success of CoPs, and if so can they be taught or are they learned naturally?

Respondents also felt that their fellow CoP practitioners were good at talking and listening to each other, and more generally good at working together. Slightly less confidence was expressed about whether the CoPs had the right balance of members (explained in workshops as being linked to lower participations from senior management).

Figure 20. Views on CoP membership

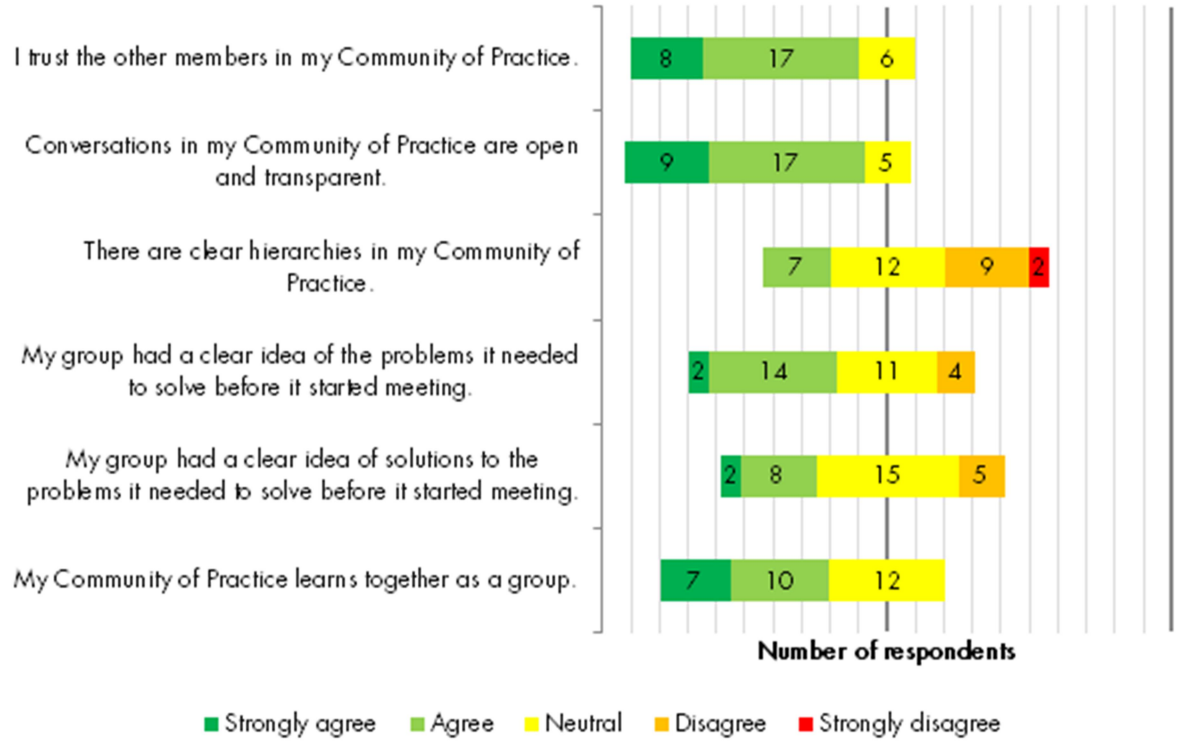


Commentary

Successful CoPs, it might be hypothesised, require not only good-quality easy conversations but also good-quality difficult conversations. Interviews and observations reinforced the positive perceptions reported above. However, it is less clear if and when good easy conversations lead to good difficult ones – that is, ones where it is possible to negotiate necessary changes even though they are disliked.

It can be seen that people trusted the other members of their CoP and broadly felt they learned together well and acted cohesively.

Figure 21. CoP relationships

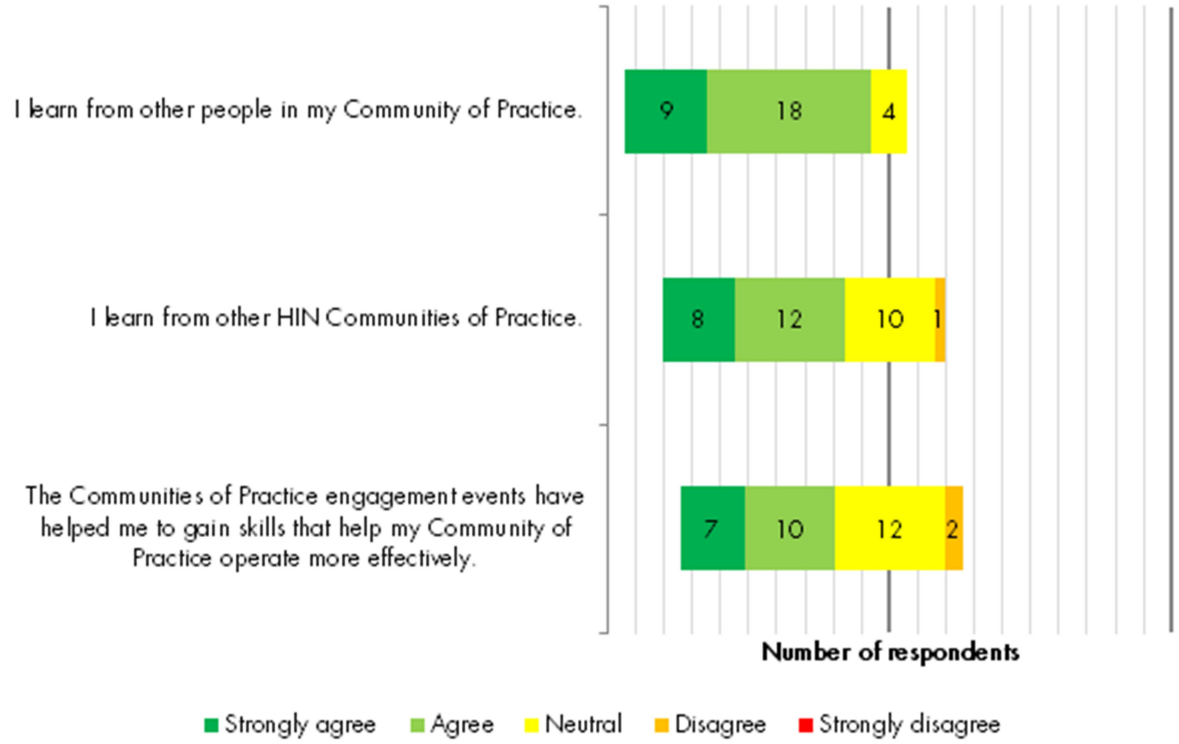


Commentary

The maxim 'change progresses at the speed of trust' was an important part of the shared vocabulary of the HIN CoPs. The data summarised above shows that trust and a sense of purpose were both present. More people disagreed that there were clear hierarchies than agreed, but these responses may have been unevenly spread across the CoPs. Understanding more about how trust is built and sustained, and with what consequences, would make a significant contribution to our understanding of CoPs and their impacts.

At a personal level, participants felt that they benefited from the CoP programme.

Figure 22. Personal benefits from CoPs

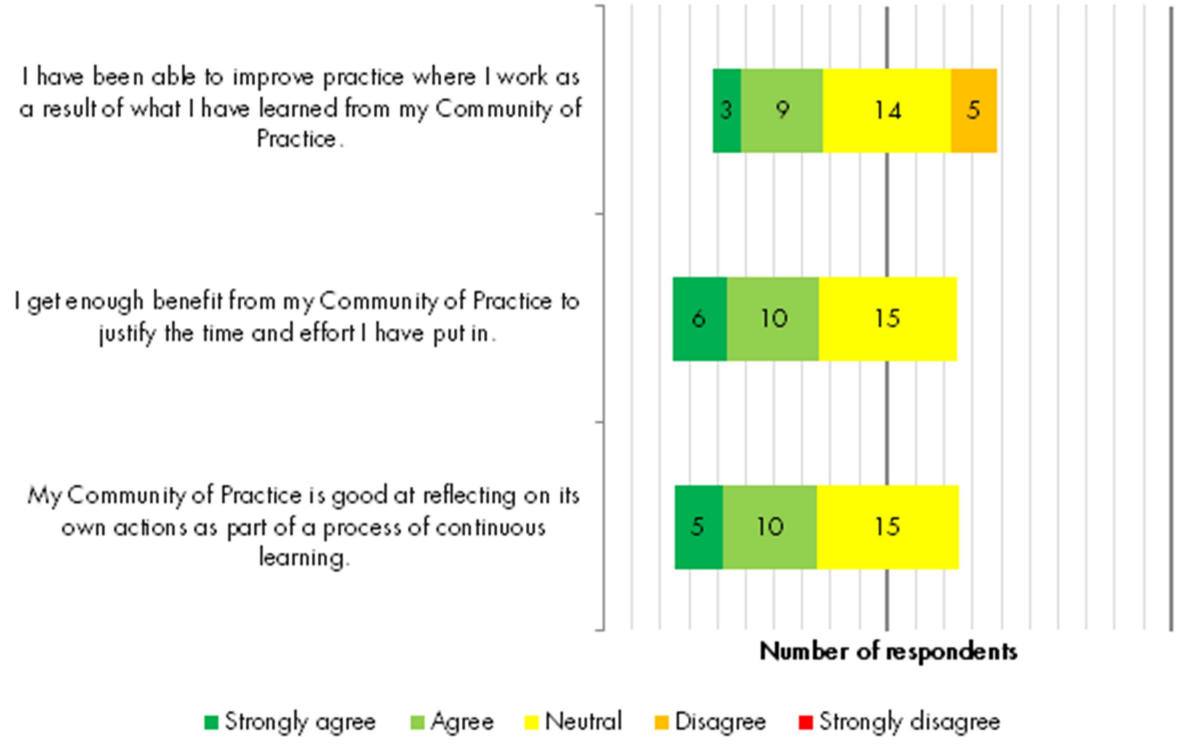


Commentary

Intrinsic and extrinsic motivations are both important if CoPs are to continue to operate; otherwise, membership is likely to dwindle. Future research should therefore explore benefits to both the system and individuals.

There were some indications that the personal benefits of CoPs might lead to other benefits, although overall respondents did not show a strong consensus towards seeing changes in practice, benefits justifying the time they put in or CoPs demonstrating continuous learning.

Figure 23. Outputs of CoPs

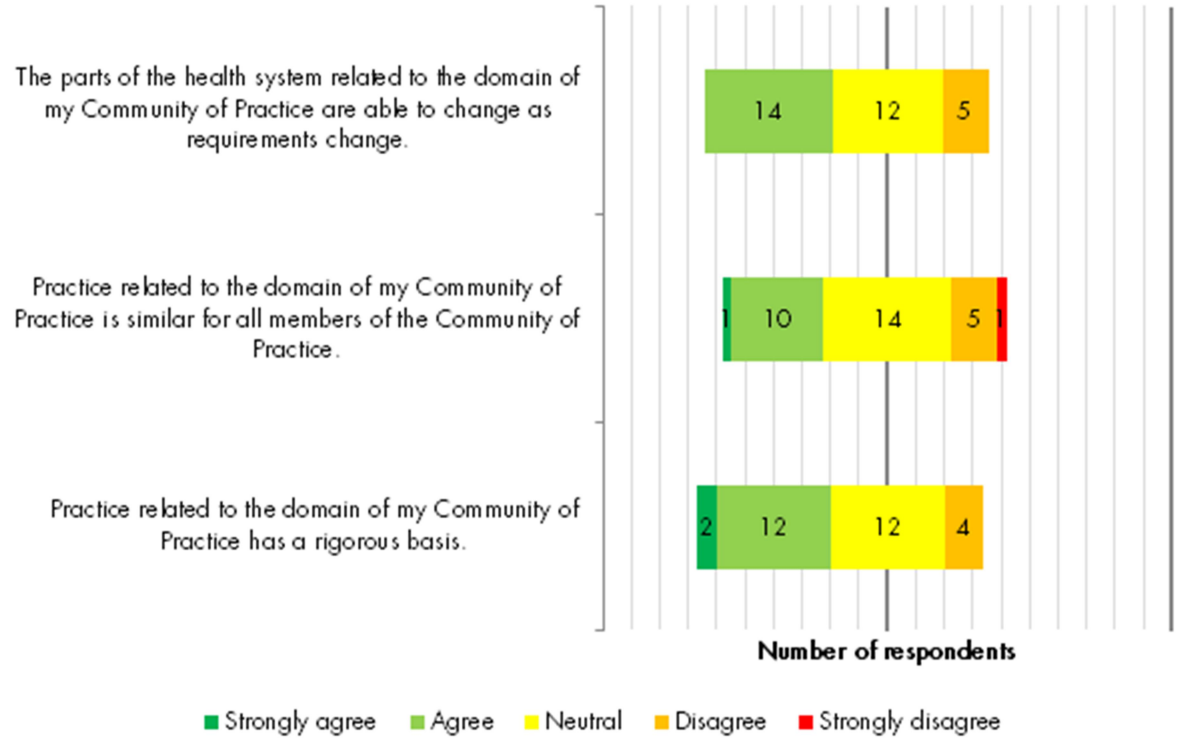


Commentary

Although positive views vastly outweighed negative views, around half of all respondents were neutral on the immediate outputs from CoPs. This might reflect the stage of the process that the CoPs are at, but this is also an area worth monitoring and exploring further.

Respondents had mixed views on the practices that the CoPs were focusing on, around the system's ability to change and the consistency and rigour of practice.

Figure 24. System benefits from CoPs

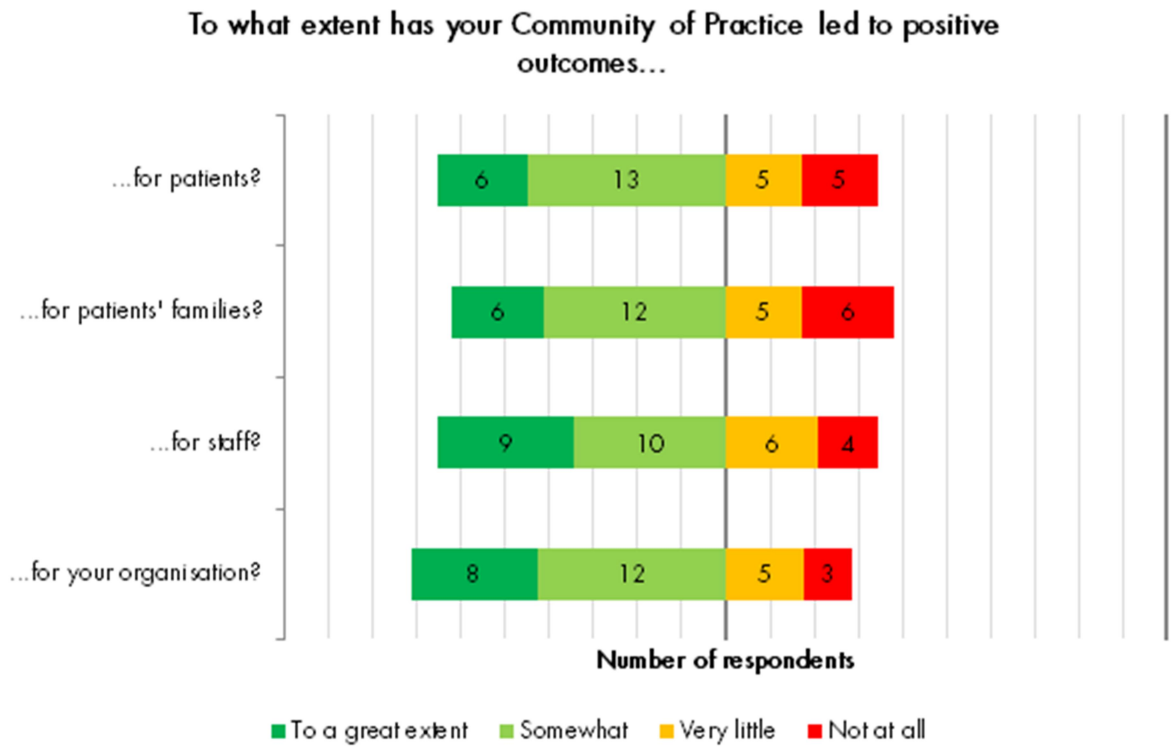


Commentary

The intention of these questions was to collect baseline data, as these were areas intended to be targeted by CoPs. A follow-up survey would be needed later in the process to investigate any potential impact of CoPs.

Respondents reported some positive impact across the board, but with a third of respondents reporting none or very little.

Figure 25. Outcomes from CoPs



Commentary

As before, these findings might be a consequence only of when the data was collected but in the future, understanding the outcomes of the CoPs is clearly the most important aim.

Final comment

The findings presented here provide not only interesting insights in themselves into the working of the HIN CoPs but also an agenda for important future research. This research would be relevant not only to improving practice in South London but also to the wider national and international literature on the potential for improvement offered by greater use of CoPs.

4. Initial conclusions based on the evidence collected to date

Before identifying possible evaluation questions and an agenda for future research in the following two chapters, we briefly pause to identify the key conclusions that arise from our work with the HIN CoPs so far. These are necessarily tentative and reflect the nature of this work as closer to an evaluability study than a full evaluation.

4.1. Why did the HIN CoPs attract positive engagement?

The HIN CoPs offered promising and attractive routes to greater patient safety and healthcare improvement. First, there was an appetite for change which had few other opportunities to be satisfied. Indeed, we know there is evidence that other efforts to improve quality have often had, at best, patchy results (Dixon-Woods and Martin 2016). Second, CoPs were attractive because they offered participants the promise of less isolated and less fragmented approaches to improvement and created a sense that members working together can make a difference. In a healthcare system where morale and engagement may be suffering (Kmietowicz 2016), this is a significant promise. Third, there is a plausible analytical argument that by making visible and using the often tacit knowledge spread across a domain, new ways can be found to address previously apparently intractable problems. This argument was underscored and reinforced by the accessibility and persuasiveness of the material presented to the CoP members (especially as observed at workshops), and the CoP members surveyed confirm a sense that CoPs matter to participants and that they feel empowered by being a part of them.

4.2. Can the HIN CoPs deliver improvement and transformation?

CoPs can offer a light-footed and flexible approach to improvement. If the knowledge needed to address the problem is contained within, or can be explored through, the CoP, then there is an opportunity to mobilise and alter behaviours to deliver change across organisational and professional boundaries. However, if the knowledge needed to deliver improvement is not accessible to the community, and if the levers for delivering change are beyond its reach, then there needs to be some modification of the model to engage senior leadership, change national mandates or work with commissioners. Furthermore, if changes are to be locked in and sustainable, the rhythm of learning characteristic of CoPs needs to have traction in securing and stabilising organisational change. This is even more strongly the case in achieving a transformational step change in the quality or cost-effectiveness of services. The HIN CoPs would need to take their work further to demonstrate that they were progressing from a change in knowing to a change in doing.

4.3. Should the HIN CoPs be part of an integrated toolkit of improvement?

It is beyond the scope of this study to locate the HIN CoPs within the wider research on approaches to improvement and transformation. However, as suggested by Figure 1, the momentum taking a CoP from achieving a change in knowing towards a change in doing might require tools and techniques that lie beyond the capacity of many CoPs, at least as far as can be concluded from the evidence to date. Sustaining a rhythm of learning in the technical and relational skills needed to deliver change in an often hierarchical and tribal health and care system (let alone developing the skills needed to demonstrate measurable improvement) may be more easily done where the CoP is linked to, or embedded within, other approaches to improvement. In terms of the maturity model outlined in Figure 2, this suggests that achieving and sustaining maturity levels 4–5 might require more support than is typically generated from within the CoP; it was not clear what route would allow the HIN CoPs to sustain such levels. Understanding how this might be achieved, and what more might be required, needs further work in both practice and research.

4.4. Why might CoPs be special?

Despite the possibility described in section 4.3 that the HIN CoPs might need external support to reach full maturity, the enthusiasm for CoPs observed at events and indicated through surveys is real. They appear to meet a hunger for working with others in non-hierarchical ways to deliver benefit for patients. The evidence provided here suggests that CoPs directly speak to the altruistic and professional motivations of staff and consequently mobilise energy and commitment. It is clear that CoPs come with their own limitations relating to managing sustained learning and delivering improvement, but it is equally clear that they generate commitment and loyalty that could, if well harnessed, greatly support healthcare improvement.

4.5. Building on these initial conclusions in future research

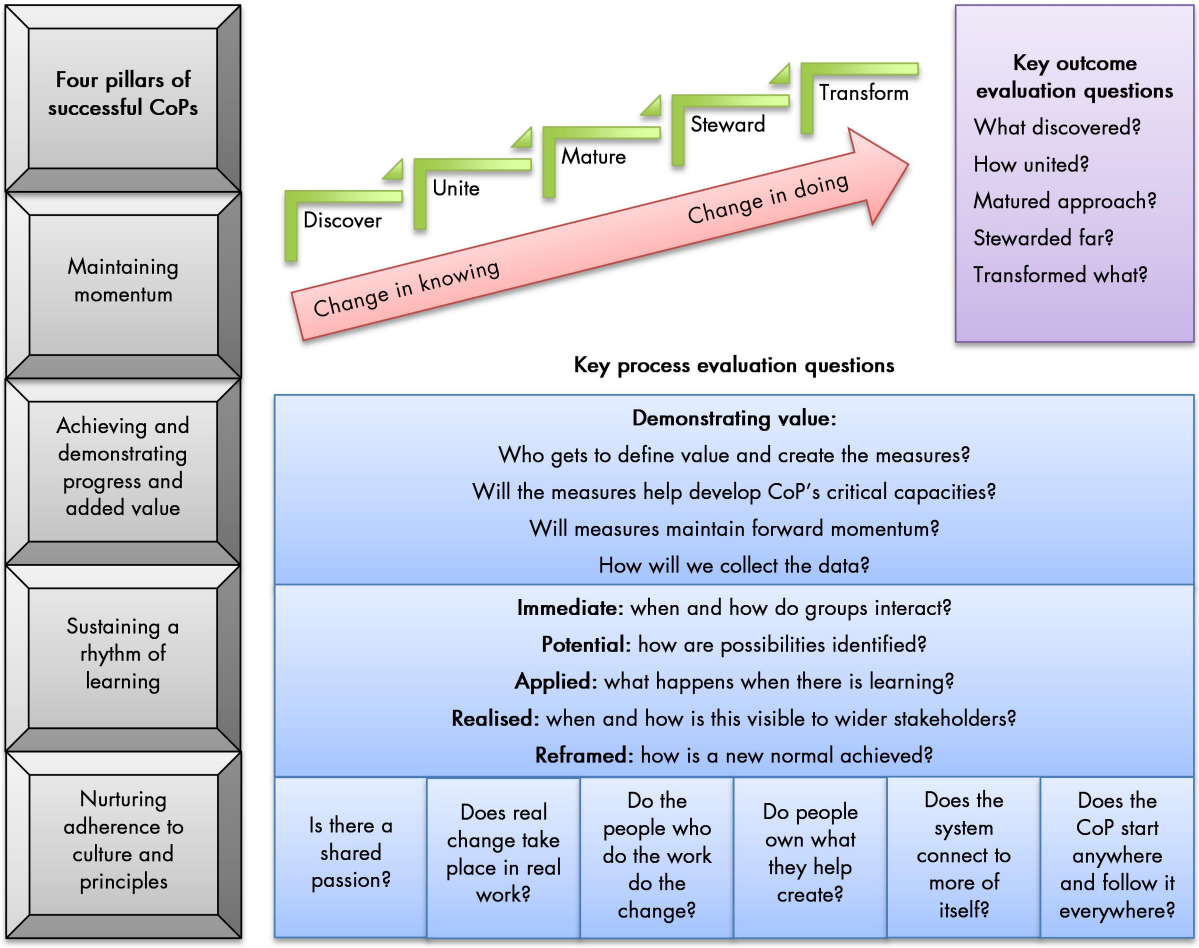
There is evidence that the HIN CoPs can generate engagement in and offer a plausible route to improvement. However, for this to be persuasive, and for the approach to support scale and spread, further work would be required from the CoPs as well as further evaluation and research. This is addressed in the following two chapters.

5. ToC and evaluation questions

5.1. The HIN CoP ToC

A ToC underpins many evaluations. These are often described in terms of a logic model which identifies inputs, processes, outputs, outcomes and impacts, tracing the causal links and contextual circumstances through which a programme transforms inputs into impacts. We summarise the HIN CoP ToC in Figure 26 below. While logic models can be helpful for more linear programmes, CoPs belong to a category of complex working including non-linearity. Although there is an expectation of change over time, defined in the five stages by the red arrow below, for the HIN CoPs this progress is generated by a set of activities that might be described as 'situated learning'. These include cycles of activities with a rhythm of learning, measuring progress and adhering to the core cultural values that define this way of working.

Figure 26. HIN CoP ToC



Key evaluation questions (and associated sub-questions) relating to the four pillars immediately drop out of this ToC. These relate to a real-time process evaluation.

- (How) are culture and principles adhered to?
- To what extent is there a shared passion?
- (How) does real change take place in real work?
- To what extent do the people who do the work do the change?
- To what extent do members own what they help to create?
- (How) does the system connect more to itself?
- To what extent does the CoP 'start anywhere and follow it everywhere' – that is, making progress wherever it is needed rather than following a pre-defined plan?
- (How) is the rhythm of learning sustained?
- Immediate: when and how do groups interact?
- Potential: how are possibilities identified?
- Applied: what happens when there is learning?
- Realised: when and how is this visible to wider stakeholders?
- Reframed: how is a 'new normal' in learning achieved?
- (How) is progress and value-added achieved and demonstrated?

- Who defines value and creates the measures?
- Will the measures help develop CoPs' capacity to examine their progress critically?
- How likely is it that putting measures in place will maintain forward momentum?
- How feasible is it for CoPs to collect the data they need?
- (How) has momentum been sustained so far and how can it best be sustained in the future?
- What of value and novelty has been discovered?
- How does this learning unite the CoP?
- (How) has the learning in the CoP led to improvements in the work being done?
- What new ways of working are being stewarded and grown more widely, if any?
- To what extent has a transformed way of working become the 'new normal'?

5.2. Identifying impacts and added value

The HIN CoPs were aware of the need to demonstrate that they add value. Fundamentally, the aim of a CoP is to deliver value for patients in the form of more holistic and personalised care delivered more quickly and more safely. However, there may also be value-added linking both to individuals and to organisations, either as part of delivering value to patients or as secondary benefits. Individual added value might include improved collaboration and listening, better understanding of the whole system and improved confidence and sense of empowerment. Regarding organisations, they might hope to see a greater capacity for risk management, more consistent practice, better morale and more reflective practitioners. These dimensions of added value, based on the four pillars, are outlined in Figure 27 below.

Figure 27. Achieving value from CoPs

Dimension of value	Personal value	Organisational value
Maintaining momentum	Developing system leadership skills Developing new ways of thinking and working	Capacity for risk Consistency of practice Better morale Lower turnover Greater flexibility/innovation Changeability/flexibility/agility Trust Social capital Better-functioning networks
Achieving and demonstrating progress and value	New possibilities for thinking and doing	Better inter-personal skills More reflective practitioners More knowledgeable staff
Sustaining a rhythm of learning	New skills New relationships	Better team-working and flow of knowledge
Nurturing culture and principles	Purposeful activity and sense of	Staff feel valued and engaged

empowerment

Important as these added values are, there is also a need to demonstrate impacts on the health and care system in general and on patient care and safety in particular. We might hypothesise that as momentum is achieved the CoP will have increasing impacts as it moves through the stages from discovery to transformation.

Clearly, the impacts in question will vary from one CoP to another but the longlist from which impacts might be selected could include:

- Intermediate impacts:
  - CoP-push efforts: CoP promotes new ways of working in the wider system
  - CoP-pull efforts: CoP creates new knowledge and changes how members work
  - Linkage and exchange: CoP creates new relationships (joins system to itself).
- Final impacts:
  - Safety of treatment in the CoP's domain
  - Effectiveness of treatment in the CoP's domain, seen in improved patient outcomes
  - Improved patient experience in the CoP's domain
  - Timeliness of care provided in the CoP's domain
  - Improved access to treatment in the CoP's domain
  - Efficiency of care provided in the CoP's domain, providing value for money
  - Improved capacity to deliver care within the CoP's domain
  - Increased equity of access to care in the CoP's domain
  - Healthy, independent living achieved for patients in the CoP's domain.

5.3. What does this mean for what the HIN CoPs might do next?

As described above, the HIN CoPs had a successful launch and the wider knowledge about CoPs, especially as articulated by Myron Rogers, gained wide use and traction. However, this is only a relatively early stage of development and we would not expect to see that the CoPs had progressed far towards the goal of transformation. A useful tool to support thinking about the steps that might be taken next would be a maturity model. Based on the evidence collected here we have drafted such a model. This should be regarded as simply a first draft to be developed further by the HIN and the CoPs – or as part of a further stage of research – but its particular value is as a tool to identify where each CoP has reached on its road to maturity and, from this, identify key actions to take in order to be at a specific stage within a set timeframe.

Figure 28. Proposed maturity model for CoPs based on research for this project

Maturity level	Direction	Leadership	Membership and collaboration	Integrity and vitality	Knowledge generation and capture	Use of knowledge and improvement	Impact and value	Sustainability, sunsets and renewal
1	A weak belief that working with others outside the organisation or profession would help, but no clear domain	Unclear leadership and just about struggling from one meeting to the next	Meeting attendance is ad hoc, volatile or stagnating	CoP members interact sporadically and with little energy and enthusiasm	Conversations tend to be repetitive with no rhythm of progress in learning	Learning is sporadic and infrequent with little impact on work	The CoP rarely if ever discusses the value it creates	The CoP is maintained on life-support by external organisation and inertia
2	Domain(s) not yet clear to all members	A leader has emerged who despite limited time can convene the CoP and include suitable members	Members are aware of how to meet and when	Energy is concentrated in a small number of usual suspects	Threaded discussions exist but these are not systematically developed into insights	Learning stays in the CoP and has little resonance in wider work	Accounts of value added are unclear and unconvincing	Membership levels totter on the edge of stability and purpose is often not renewed
3	Shared passion for the domain	A leader has emerged with sufficient time and capacity to facilitate the CoP effectively	Structure for meeting and learning is in place	Energy is spread widely within the CoP	Members can remember and build on insights and new knowledge created by the CoP	The CoP is a place where learning is shared and reflection takes place	Members feel the CoP adds value and some external resource-holders share this feeling	A steady number of members join organically around the core domain
4*	Clear and agreed outcomes for the domain	Skilled leaders can include, enthuse and galvanise learning	Agreed sense of who needs to be in the CoP and how to work together	Leaders ensure an energetic, purposeful and inclusive atmosphere	Information and knowledge created in the group is well curated	Themes emerge from members' work and support situated learning	There are good stories about the value created that are widely shared	Succession plans ensure continuity, and appropriate turnover of members is welcomed
5*	Shared focus on the domain but within this reflexive and adaptable	Leadership is shared	Those who are in the CoP are sufficient to make the desired progress within the respective domain, and they can work together	CoPs feel and act like energetic and ethically driven groups	New, creative insights are generated and communicated	The CoP provides a platform for members to learn in work situations and collectively reflect	The CoP has acknowledged and visible benefits in the quality of work done	The CoP survives and thrives without individual or organisational support and knows if its purpose is complete

* To achieve level 4 in a column, a CoP must meet the criteria described in the rows for both levels 3 and 4. To achieve level 5, it must meet the criteria described in the rows for levels 3, 4 and 5.
Source: original work based on research for this project.

6. Recommendations for future research

6.1. Introduction: why research CoPs?

The key research problem is that there is inadequate evidence supporting the hypothesis that CoPs form a useful approach to addressing at least some of the significant challenges in the health and care system, even though this is plausible and there is growing interest in it. We have seen that there are high expectations in health and care regarding what CoPs can contribute, and that there is a credible account of how this might happen. Yet we have also seen that the wider evidence is incomplete about both how CoPs work and the value and impacts they create. The HIN CoPs offer an important research opportunity to address both these questions with results that are valuable not only for the HIN itself but for knowledge about CoPs and their contribution more widely. If CoPs are to be a part of current ambitions to transform health and social care in the UK and beyond we urgently need a deeper understanding of their operation and consequences. The benefits of this research would be its contribution to understanding health service improvement and to the many other settings where CoPs are being used or considered. With the work presented here we are able to scope out what such research might include.

6.2. Key overarching evaluation questions

In the previous chapter we identified key evaluation questions relating to the processes of CoPs. These are:

- (How) is the momentum towards transformation sustained and what are the wider dependencies that are needed for this to happen?
- (How) is progress and value-added measured?
- (How) is the rhythm of learning sustained?
- (How) are cultures and principles nurtured and sustained?

These might be explored further through a more developed form of maturity model.

Furthermore, we suggested that there are significant potential added values for both individuals and organisations (summarised in Figure 27) that should also be explored. But we also suggested that outcomes and impacts require further study.

6.3. Subsidiary evaluation questions

Throughout this paper we have identified a set of 'lower-order', but nevertheless important, evaluation questions. These relate to:

Knowledge and learning

How do CoPs contribute to knowledge creation, if at all, and what is distinctive about the knowledge created? How actionable is this knowledge and when and how does it lead to changed behaviour, if at all? What is the nature of 'situated learning' (learning in the context in which it is applied) in relation to this question and how has this worked in practice in the HIN CoPs?

Measurement

What are the available tools for measuring the added value, learning, behaviour change and deliberate embedding of a change of culture? How have these been operationalised in relation to the HIN CoPs, or how might they be?

Patient safety

The HIN CoPs began as a response to the need to address patient safety. To what extent do the HIN CoPs support the idea that they are a feasible and effective response to this need?

Managing CoPs

What infrastructure and management support help CoPs to be effective? What does it mean to be 'self-organising and self-governing' when still dependent on support and leadership from the HIN?

Transferability of lessons

To what extent are the lessons from the HIN CoPs transferable? What would be needed for any changes of practice resulting from the work of the CoPs to be scaled up?

Sustainability and sunsets

What do the HIN CoPs tell us about their sustainability and how they are completed?

Purpose and 'home ground'

What outcomes or impacts, if any, are CoPs especially well placed to accomplish? Are there especially fertile 'home grounds' where they are likely to flourish and, conversely, are there circumstances where they are almost certain to fail?

6.4. Evaluation approaches

An evaluation approach would combine a formative (contributing to learning) and summative (reporting to learning) evaluation. The formative component of the evaluation will enable the evaluation team to continue to feed emerging results to the HIN CoPs in real time and thus maximise the value of the

evaluation. The summative component will aim to provide a more critical appraisal of the achievements of the CoPs, to understand whether there has been any perceptible impact and value added.

We would aim to approach the evaluation questions from the perspectives of all of the key stakeholders and their respective organisations. In order to achieve this, we will undertake a mixed-method approach, using both qualitative and quantitative methods, namely:

- Document review
- Key informant interviews and focus groups
- Surveys/Social Network Analysis
- Comparative case studies
- Qualitative Comparative Analysis
- Citizen ethnography
- Non-participatory observations
- Contribution analysis.

6.5. Potential funders

We have reviewed potential options for the funding of a full evaluation of the HIN's CoPs and outline briefly below what we see as the most promising options. There are likely to be alternatives if these are unsuccessful.

The National Institute for Health Research (NIHR)

The NIHR has funded RAND Europe to carry out a number of health service evaluations, particularly through its Health Services and Delivery Research (HS&DR) programme. There are currently no suitable commissioned funding opportunities, where the NIHR specifies an area of research; however, this could be a potential researcher-led project, as it is designed to lead to improvements in health services that will be of benefit to the NHS and to patients.[5]

The Health Foundation

The Health Foundation is a charity with a keen interest in initiatives aiming to improve the capacity for improvement at a system level. We are currently evaluating two such initiatives (Q and Improving Flow). Although there are no open calls in this area, we could explore the possibility of the Foundation's funding this, as it relates to an area that is of interest to it.[6]

[5] See NIHR (2018) for more information.

[6] See The Health Foundation (2018) for more information.

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