

Understanding South London's Capacity for Implementation and Improvement Science



Prepared for: South London HIN (South London AHSN) and NIHR CLAHRC South London

Prepared by: Dr. Stephanie Fade PhD RD, Director at What Matters Cubed and Dr. Mary Halter PhD, RN, Senior Research Fellow, Kingston University and St Georges, University of London

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ABOUT THE COMMISSIONERS

Collaboration for Leadership in Applied Health Research and Care South London

The Collaboration for Leadership in Applied Health Research and Care (CLAHRC) South London is investigating the best way to make tried and tested treatments and services routinely available. University-based researchers, health professionals, patients and service users are working together to make this happen. The collaborating organisations are Guy's and St Thomas' NHS Foundation Trust, Health Innovation Network (the Academic Health Science Network for South London), King's College Hospital NHS Foundation Trust, King's College London, King's Health Partners, St George's Healthcare NHS Trust, St George's University of London and South London and Maudsley NHS Foundation Trust. The work of the CLAHRC South London is funded for five years (from 1 January 2014) by the National Institute for Health Research, collaborating organisations and local charities. It is 'hosted' by King's College Hospital NHS Foundation Trust. The CLAHRC is also working closely with GPs, local authorities (responsible for public health.)

Health Innovation Network

The Health Innovation Network (HIN) is a membership organisation, driving lasting improvements in patient and population health outcomes by spreading the adoption of innovation into practice across the health system and capitalising on teaching and research strengths. The HINs diverse membership includes all healthcare providers (community, acute, mental health and primary care), commissioners, local authorities and higher education providers. The HINs work programmes are underpinned by strong relationships and collaboration with both patient and industry partners.

As the Academic Health Science Network for South London the HIN has prioritised health challenges for local communities; including diabetes, dementia, musculoskeletal conditions, cancer and alcohol.

Through its programmes, particularly the way the HIN works with partners and member organisations, they align; training and education, clinical research, informatics and innovation to improve patient outcomes and experience. The HINs unique approach and membership encourages strong cross-organisational and sector working using innovative technological tools and solutions to support networking.

FUNDING

Health Education South London

This work was made possible by the generous support of Health Education South London (HESL), as part of their funding to the South London HIN to support education and training initiatives and the CLAHRC South London to build capacity in Implementation Science.

As part of Health Education England, HESL is working with its members to plan, design, develop and deliver a workforce to improve the health and wellbeing of South London's communities, supporting the delivery of world class care and high quality patient outcomes through education and training.

HIGH LEVEL SUMMARY

Background

South London's Health Innovation Network (HIN) and the Collaboration for Leadership in Applied Health Research and Care (CLAHRC) have a shared interest in understanding the enablers and barriers associated with developing capacity for Implementation and Improvement Science across the workforce in South London. Implementation Science promotes the integration of research findings and evidence into healthcare policy and practice and offers tools to address major blockages that prevent effective implementation of practices that have already been shown to have the capacity to improve healthcare. It is closely allied to Improvement Science, which seeks to determine which improvement strategies work best in relation to improved outcomes, safety and experience in any given environment. In addition there is strong interest in the leadership skills that enable people to put Implementation Science and Improvement Science into practice and systematically evaluate its impact.

This agenda is a key enabler for improving service user experience, patient safety and outcomes and population health as highlighted in the Berwick Report (National Advisory Group on the Safety of Patients in England 2013.)

What is this report about?

This report describes the education market in the field of Implementation and Improvement Science and the barriers and enablers associated with people accessing and engaging with the education and development opportunities available.

More specifically we set out to:

1. Understand the range of courses, programmes and fellowships available to the South London health and social care workforce (including non-clinicians) that support the development of improvement/implementation science skills.
2. Promote these courses, programmes and fellowships to the South London workforce.
3. Describe the enablers and barriers associated with staff accessing and engaging with development opportunities in improvement/implementation science.
4. Use the findings from 1 and 2 above to inform the development of the CLAHRC's Implementation Science MSc to support submission for validation from September 2014 to start September 2015.

Additional work is planned for completion in the spring of 2015 will be used to develop recommendations for the health and social care education system and for health and social care

providers in order to increase capacity for Implementation and Improvement Science and the practical know how for service improvement across the workforce.

What did we do?

We carried out a review of all University websites across London, the Open University and of two major online education providers, BMJ Quality and the Institute for Healthcare Improvement. In addition we used generic search engines to identify other courses that may not have been publicised via University websites. We used relevant search terms associated with Implementation and Improvement Science (see pages 16 and 17) to identify education opportunities in the field, recorded publicly available information about the courses and requested verification from the education providers.

In parallel our Steering Group identified key experts in the field who we interviewed to explore the barriers and enablers associated with people accessing and engaging with learning in this area. Our participants identified additional experts who were also interviewed. We used the information we gleaned to identify groups of people that we needed to work with to understand these issues better. We then arranged meetings or teleconferences with these groups to explore the issues with them.

What did we find?

The London Higher Education Institutions (HEIs) with relevant courses numbered 20, and the Open University as a national distance learning HEI was added to that. Of the 21 HEIs included, no courses related to improvement science were identified at 9; the remaining 12 HEIs yielded 49 courses spread fairly evenly across the London geography. We found 11 courses completely focused on improvement and/or innovation but only one course specifically used the term “Improvement Science” in the course title and none used the term “Implementation Science” in the title.

The majority of courses identified are presented at postgraduate level, either as a postgraduate certificate, diploma or master’s degree, or as academic credits at this level. 15 courses required registration with a healthcare regulator as a requirement for admission.

19 short courses strongly focused on implementation and improvement were identified, mostly using online learning. One referred specifically to “Improvement Science” in the title and another, a masterclass provided by the NIHR CLAHRC South London, referred to “Implementation Science” in the title. These courses were accredited for Continuing Professional Development.

11 relevant fellowships were identified only one of which was open to people without registration with a healthcare professional regulator.

There are clearly opportunities to study in the field but largely at postgraduate level and with many more opportunities for those who are registered with a healthcare professions regulator. The terms “Implementation Science” and “Improvement Science” are not commonly used even where the course content reflects these sciences closely.

Through the qualitative analysis we found four major themes. The first two offer useful information about how to promote Implementation and Improvement Science and how to market courses in the field. Themes three and four provide information about how to develop the workforce in this area of practice and how to maintain capacity. The themes are summarised below:

Relevance

Our work showed that Implementation and Improvement Science had wide-ranging relevance for practitioners and service users.

Participants talked about their personal and professional responsibility for implementing evidence-based practice and for improving services. There was a clear commitment but also a frustration that making time for improvement work and/or for professional development in the field was very challenging.

Participants identified a number of strategic drivers for developing skills around Implementation and Improvement Science. People were aware of the contractual responsibilities they had around quality, safety and improvement but there was concern that these often focused excessively on performance targets which could stifle creative work around real quality improvement.

Integrated Care was specifically highlighted as an area where Implementation and Improvement Science skills were beneficial. Participants also talked about the way in which Implementation and Improvement work drove cross-disciplinary working and supported service-user involvement in a very real and empowering way.

People who had experienced learning in the field spoke about how their experiences had increased their job satisfaction by broadening their horizons and some participants had used their learning as a springboard into a clinical academic career or leadership role.

Credibility

There were some reservations expressed about the credibility of Implementation and Improvement Science. In some cases these reservations were associated with the evolving nature of the field and the need for more information. Some participants were concerned that the field was too politicized and so regarded with suspicion by many practitioners.

People stressed the need for more expertise both in practice and in academia. In practice participants were concerned to see more leadership around creating the right environment for change and improvement work. In the academic setting, participants talked about the need to give more emphasis to the skills needed to implement evidence-based practice and measure and evaluate improvement.

Participants recognised that there was considerable scepticism about the benefit of Implementation and Improvement Science and there was interest in doing more work to look at clinical outcomes, particularly to engage clinicians and influence boards. In addition there was interest in the language used and ensuring that all stakeholders were able to access information about the impact of implementation and improvement techniques in language that made sense to them.

Interestingly there was also interest in ensuring that the benefits of improvement work were not over-inflated in a bid to promote the tools and techniques.

Valuing practical know-how

Participants from the academic and practice worlds were interested in how we could value and support the practical skills needed for implementation and improvement work.

Successful implementers and improvers were valued as mentors, trouble-shooters and inspirational role models. Participants were keen to ensure that future students in the field had access to successful implementers and improvers from a variety of different backgrounds and experience. This resource was considered essential but there was a very practical acknowledgment that these people were usually already very busy and there was interest in practical initiatives to make access possible without over-burdening people and organisations with expertise to share.

There was considerable strength of feeling around the value of using and seeing tools and techniques in practice to maximise learning. There was interest in simple short visits to centres of excellence but also in extended periods of learning in practice in the form of secondments, apprenticeships and internships. Participants also attached value to action learning, working with colleagues from different backgrounds and disciplines on a real life problem in the practice setting.

Leadership skills were considered perhaps more important than knowledge of techniques, tools and processes. Participants highlighted the importance of influencing and stakeholder engagement skills as well as understanding how to build personal resilience in order to cope effectively with set-backs. A number of participants specifically stressed the importance of leadership around measurement and evaluation and the need to develop people who could explain this area in an accessible and

practical way in order to help counter cynicism about excessive measurement in some practice settings.

Sustainability

Participants highlighted the importance of ensuring that educational initiatives were able to deliver sustainable improvement in capacity for implementation and service improvement work. Some participants were concerned about wider determinants of sustainability across the health and education system. Others focused more on factors within the direct control of those developing the educational initiatives.

There was significant concern about funding issues, in particular ensuring the stability of funding streams and funding for backfill to ensure protected time. In terms of stability, participants believed that interest ebbed and flowed with political priorities and central initiatives and there was concern about the impact this had on capacity in service provider organisations and the ability to plan in universities. There was concern about the difficulties people experienced in getting funding for backfill in light of the small number of fellowships available. As getting time off to study had cost implications for employers some participants were concerned that people would be put off by the bureaucracy.

Participants had different perspectives on the value of commissioning as a system lever. Some people were concerned that the focus of commissioning was on performance management and not quality improvement and felt that there were development needs for commissioners in this area. Universities cited the Research Excellence Framework as an important lever for joint appointments linking academia with service delivery. There was also interest in ensuring that education commissioners stressed the need for building an understanding of the skills required for service improvement into a wide range of educational initiatives at every level.

There was very wide-ranging interest in partnership and collaboration to enhance capacity for Implementation and Improvement Science. Partnership with the full range of stakeholders was highlighted in relation to co-production of education initiatives. Participants were very keen to involve service-users in this work and also stressed the importance of collaboration to open up learning environments for non-clinical people wishing to study in the field. The partnerships facilitated by the National Institute for Health Research were valued in relation to Clinical Academic Careers and there was interest in developing these partnerships to evolve this work to emphasise implementation and improvement to a greater degree. Technological partnerships were valued to support e-learning, m-learning, communities of practice and open access to materials and expertise via Massive Open Online Courses.

What practical significance do the findings have?

Our findings suggest a number of considerations in relation to the development of a Master's programme in Implementation/Improvement Science and some suggestions for other educational initiatives that should be further explored in the next stage of this work.

The following considerations are relevant to marketing, content development and approaches to delivery of a programme at Master's level.

1. There is evidence that the programme would be relevant to the following groups healthcare professionals (in practice and academia), service-users, healthcare and social researchers and managers from both provider and commissioning organisations. It will be important to recruit for diversity to support learning across disciplines but also to recruit for long-term commitment and potential to succeed.
2. The end goal of improved quality, safety, outcomes and population health draws all the target groups together and it will be important to consider how this is played into the way the programme is promoted.
3. It is likely to be helpful to involve all the target groups listed above in identifying a helpful title for the programme and to help develop selection criteria.
4. Consideration should be given to how access can be facilitated to practice learning opportunities for students who do not come from healthcare practice roles. Service provider organisations could for example sponsor students to undertake the programme on the understanding that the student would undertake a specific piece of improvement work aligned with the organisation's strategic priorities.
5. Time to learn and funding are both limited and this creates a strong case for ensuring that all modules can stand-alone. It is likely to be helpful to show how modules relate to each other so that potential students can "pick and mix" more effectively.
6. Offer modules with a highly practical emphasis that could enable students from different fields of practice to tackle specific challenges in their workplace.
7. Embed visits to centres of excellence into the programme and consider filming interactions between your students and successful implementers and improvers to create materials that can be made available more widely via a web portal or MOOC.
8. Facilitate the development of Action Learning Sets for all students on the programme, bringing together people from diverse backgrounds to share their expertise and experience.
9. Consider developing a partnership with the Leadership Academy enabling your students to learn alongside and from people in executive roles as part of the leadership element of the course.
10. Include practical influencing skills, stakeholder engagement work and learning around building personal resilience in the leadership element of the course.

11. Offer innovative and inspiring teaching around measurement and evaluation embracing qualitative as well as quantitative approaches.
12. Consider collaboration with the Clinical Human Factors Group to produce case studies for mutual benefit and an expert teaching resource.
13. Recruit a wide pool of potential mentors from different professions and with experience of different service environments.
14. Ensure that all potential mentors can demonstrate significant success with implementation/improvement in practice.
15. Incentivise mentors to ensure that they commit adequate time to the students.
16. Consider offering an optional internship period at the end of the Master's programme, allowing students extended time to learn from successful implementers/improvers in the field.
17. Facilitate a collaborative alumni network with other organisations offering courses and fellowships in the field.

In terms of wider educational initiatives our findings would suggest that there is benefit in exploring the following:

1. A pilot programme with an apprenticeship provider to enhance the foundations for improvement work in the bands 1-4 workforce.
2. Developing bite size learning around implementation and improvement that could be delivered via a smart-phone "App."
3. A pilot programme aimed at enhancing understanding of and commitment to improvement through induction.
4. A specific short course for commissioners aimed at shifting the emphasis from performance management to quality improvement.
5. Collaboration with the London Leadership Academy to enhance board development in relation to Implementation and Improvement Science.
6. A specific short course for non-clinical managers to enable them to effectively work between Boards and clinicians around improvement
7. Commissioning specific "action learning" to bring together service providers with a quality or safety challenge and researchers with a potential solution.
8. Consider funding additional fellowships in the field to build capacity and expertise.
9. Innovative approaches to disseminating information about learning opportunities relevant to the field of implementation and improvement.

UNDERSTANDING SOUTH LONDON'S CAPACITY FOR IMPLEMENTATION AND IMPROVEMENT SCIENCE

Background

This report is part of a programme of work inspired by a shared passion amongst academics and health and social care providers to improve patient safety, outcomes and experience and enhance the health of the population of South London by building capacity for Implementation and Improvement Science. Phase one, reported here, focused on mapping and describing education and development opportunities in this field and describing what attractive and accessible new educational initiatives might look like. Phase two, which is planned to start in the autumn of 2014 and report in the spring of 2015 will make recommendations for ongoing education commissioning, policy and culture change to increase capacity in this area.

The work was jointly commissioned by the South London HIN and the CLAHRC and funded by Health Education South London (HESL.)

Implementation Science is the study of methods to promote the integration of research findings and evidence into healthcare policy and practice. It seeks to understand the behaviour of healthcare professionals, managers and policy makers alongside those of service users and carers and how these behaviours impact the sustainable uptake, adoption, and spread of evidence-based interventions. The methods investigate and address major blockages (e.g. social, behavioural, economic, management) that prevent effective implementation of practices that have already been shown to have the capacity to improve healthcare and systematically measure the impact of these practices on patient outcomes, experience, safety and population health.

Implementation Science is closely allied to Improvement Science, which seeks to determine which improvement strategies offer most benefit in terms of safety, health outcomes and the experience of service users.

Historically there have been numerous reports and initiatives that have highlighted the importance of sustained action to improve patient safety, outcomes and experience. Back in 2006 the Department of Health published Safety First, a review of patient safety in England, which found that positive action was needed to drive sustained improvements in patient safety. The recommendations led to the Patient Safety First campaign, which ran from 2008 to 2010 and brought together resources and expertise from the National Patient Safety Agency, the NHS Institute for Innovation and Improvement and the Health Foundation to focus on the following 3 aims:

- Engage leaders to focus on improving their safety culture
- Engage frontline clinicians in patient safety
- Enable changes in behaviour locally through implementation.

The campaign left the Patient Safety First community website, which includes a range of resources to support staff at all levels with implementing improvement to enhance patient safety.

<http://www.patientsafetyfirst.nhs.uk/Content.aspx?path=/>

Despite this impressive work recent years have seen the publication of several reports into shocking and catastrophic failings in relation to the provision of safe and respectful treatment and care (Winterbourne View Report 2012, Francis Report 2013, Keogh Review 2013 and Berwick Report 2013.) All these reports highlighted the need for quality and safety improvement work across the health and social care system.

In particular the Berwick Report (2013) highlighted that:

“Improvement requires a system of support: the NHS needs a considered, resourced and driven agenda of capability building in order to deliver continuous improvement” (Page 4)

And made the recommendation that:

“Mastery of quality and patient safety sciences and practices should be part of initial preparation and lifelong education of all healthcare professionals including managers and executives.”

(Recommendation 5, page 5.)

Responsibility for leadership in patient safety transferred to NHS England in 2012, whilst NHS Improving Quality (NHSIQ) took over leadership of the improvement and innovation agenda from the NHS Institute for Innovation and Improvement. These organizations continue to develop and promote initiatives to improve outcomes and safety such as NHS Change Day and Sign Up to Safety launched by the Secretary of State for Health on 24th June 2014.

In parallel with this the National Institute for Health Research (NIHR) was created in April 2006 under the 2005 Government strategy for health research: Best Research for Best Health. The National Institute for Health Research (NIHR) is funded through the Department of Health to improve the health and wealth of the nation through research. One of the NIHRs work strands is to

support individuals carrying out and participating in research. Whilst the NIHR commissions research, supports researchers and seeks to speed up translation of research evidence into practice England's fifteen Academic Health Science Networks and thirteen CLAHRCs have been specifically commissioned to function together with the NIHR to deliver a step change in the way that research is translated into practice, in order to improve patient and population health outcomes.

The Literature

Literature pertaining to the training of people in implementation and improvement science and to understanding how those who have been trained can put their skills into practice is limited. The majority of work focuses on the difficulties of moving research findings into practice and promoting improvement science as a way of doing that.

The literature available points to these sciences as emerging areas, raising questions about what might be needed to promote them and build capacity. Issues highlighted include clarity of implementation science terminology and strategies (Powell, et al., 2012), skilled implementation researchers (Proctor, et al., 2009) with training in knowledge transfer, funding for training opportunities (Holmes, et al., 2014), a scientific society (Wensing, Grimshaw and Eccles, 2012) or a group similar to the Cochrane Collaboration (Parry, et al., 2013). These papers focus more on capacity for researchers to translate research into practice, than on practitioners and clinicians being involved in implementation science. However the call for a scientific society for research on how to improve healthcare is made with the aim that it would provide information on relevant resources, events, and training opportunities; provide a voice for the field at funding agencies, political arenas, and similar institutions; and “start an international debate, to discover if we can establish a shared vision across academics and stakeholders engaged with creating scientific knowledge on how to improve healthcare.” (Wensing, Grimshaw and Eccles, 2012)

In relation to developing an understanding of knowledge transfer Holmes, et al. (2014) report that respondents were interested in online resources, attending workshops and taking free web-based training with local and international mentors and peers. The barriers to participating in training included lack of commitment from an employer, travel costs, time commitment, location and registration fees. Differences by professional role were found, with higher percentages of healthcare providers and public servants indicating that lack of commitment from an employer and competing priorities were barriers and more clinician-scientists saying that a multi-day commitment would prevent their participation.

Facilitators for effective knowledge transfer in the workplace highlighted in the literature included additional people (funding), dedicated staff, expertise through mentors, librarians, knowledge

transfer units and (the largest group of responses) organisational culture (Holmes, et al., 2014.) This last point provides insight into the issues that those working in implementation science might face.

Burke and Gitlin (2012) suggest that:

“Moving forward and adopting evidence-based findings will require a focused understanding of the particular setting where change is warranted. Among the issues to address are the health system levels involved in change (professional, legislative, administrative, practitioner, and patient and family members), the values and beliefs of the participants, and knowledge of the communication channels that exist in the setting and how information and new ideas make their way through the setting.” (Burke and Gitlin, 2012)

Greenhalgh, et al. (2004) reviewed the literature on the diffusion of innovations in the real-world context and suggested that although the field is complex, a two stage approach to the spread and sustainability of innovations could be recommended. They state:

“The first stage is to consider the individual components of the model in turn: the attributes of the innovation; the characteristics and behaviour of individuals; the structural and cultural determinants of organisational innovativeness, and so on. The second stage is to consider the interaction between these components with particular reference to local context, setting and timing. Whereas the first stage is largely a question of applying a literature-derived checklist, the second stage requires a high degree of practical wisdom, local knowledge and consultation.” (Greenhalgh, et al., 2004, p.323)

Fulop, et al. (2013) also suggest that the concept of the ‘social matrix’ (Webster, 2007) may be useful regarding the realities of negotiating change in complex settings, the social matrix being “where innovation is understood not as a technical, rational set of issues but in terms of requiring ‘co-creation’ by a range of stakeholders—where such processes create a ‘social matrix’ that is only as strong as the network of relations that hold it together.” (Fulop, et al., 2013, p.8 of 10)

It is against this backdrop that the South London HIN and the CLAHRC have come together to strengthen their understanding of how best to develop capacity for Implementation and Improvement Science across the workforce in South London. The findings presented here will inform the development of educational initiatives in this field planned by the CLAHRC and will act as a springboard for further work to improve the capacity in this field and hence the ability of staff and service users across South London to improve patient safety, outcomes and experience and the health of the population.

Governance

Professor Fiona Ross, Senior Responsible Office for Education for the HIN and Professor Jane Sandall, Capacity Lead for the CLAHRC are the Senior Responsible Officers for this work and jointly Chair the Steering Group which governs the programme.

Name	Affiliation
Professor Fiona Ross (Joint Chair)	Senior Responsible Officer for Education, South London HIN
Professor Jane Sandall	King's College London University, Capacity Lead for NIHR CLAHRC South London
Dr Nav Chana	Director of Education and Quality, Health Education South London
Dr Chris Streater	Managing Director South London Health Innovation Network
Professor Graham Thornicroft	Director, NIHR CLAHRC South London
Professor Stephen Tee	Associate Dean Education, Florence Nightingale School of Nursing and Midwifery, Kings College, London
Dr Rachel Allen	Dean of Postgraduate Studies, St George's University of London
Professor Nigel Pitts	Director of Innovation and Implementation, King's College London Centre for Dental Innovation and Translation
Dr Ian McFadzean	Dean of Bioscience Education, King's College London Institute of Pharmaceutical Sciences
Professor Susan Lea	Vice-Dean (Education), Institute of Psychiatry , King's College London, National Teaching Fellow

Table 1: Membership of the Steering Group

A Steering Group meeting in May 2014 agreed the aims, objectives and scope for phase 1 and discussed phase 2.

Aim

This mapping and fact finding work has been commissioned to better understand the education market in the field of Implementation and Improvement Science and the barriers and enablers associated with people accessing and successfully engaging with the education and development opportunities available.

Objectives

1. Understand and publicise the range of courses, programmes and fellowships available to the South London healthcare workforce that support the development of knowledge and skills related to the field of Implementation and Improvement Science.

The scope of the work is pan-London covering HEIs offering relevant training to health professionals and non-clinical staff including managers and health service researchers and includes

clinical academic training providers for medicine and dentistry. Major online providers have also been included.

2. Describe the enablers and barriers associated with staff accessing development opportunities in this field.

This work focused on generating breadth and depth of understanding about attitudes across the South London healthcare workforce. Information was gleaned from a range of healthcare organizations, professions (ie nurses, midwives, GPs, Dentists, Pharmacists, AHPs and managers) and workforce groups including biomedical and social science researchers. All grades of staff were included and specific insights were sought from ward and department managers as well as those involved in supporting leadership development.

3. Make recommendations to inform the curriculum design and delivery method for the CLAHRC's MSc in Implementation/Improvement Science

The CLAHRC is keen to take account of learning opportunities that are currently available across London to support complementarity in order to give staff access to a programme that best meets their needs.

Approach

1. Understand and publicise the range of courses and programmes available to the South London healthcare workforce that support the development of knowledge and skills related to the field of Implementation and Improvement Science

A Research Fellow from Kingston University and St George's University of London under the supervision of the author of this report (an independent consultant) carried out a review of the websites of all London Universities and Schools of Postgraduate Clinical Academic Training for Doctors and Dentists across London and the major online providers British Medical Journal (BMJ) Quality and the Institute for Healthcare Improvement (IHI), as well as the NIHR website and general searches carried out via Google. This review identified relevant fellowships, courses and programmes using the terms listed below:

- Improvement Science
- Implementation Science
- Evidence-based practice
- Knowledge mobilization
- Knowledge translation
- Translational medicine
- Clinical Research Training Fellow

- Clinician Scientist Fellow
- Darzi Fellow
- Implementation Science and Improvement Science Fellow
- Knowledge Translation Fellow
- Quality Improvement Fellow
- Masters in Research/Clinical Research

To be included in scope, programmes needed to be specifically health or social care focused and had to explicitly support clinical academic careers and/or development in relation to the sciences of quality and improvement even if this was not specifically reflected in the title.

Information was recorded under the following headings:

- Level of award
- Entry requirements
- Length of programme
- Delivery method
- Cost or Stipend as relevant
- Final award
- Topics covered in the course

The key contact for the course identified from the website (course director or other member of the teaching team, course administrator or general helpdesk) was contacted via email, attaching an institution specific spreadsheet containing the extracted data on courses from their own institution, requesting verification of the extracted data and identification of any other courses relevant to the field of implementation science. The initial email was followed up with further email and phone calls where contact numbers could be found beyond general university-wide course enquiry numbers.

The data were analysed descriptively, both quantitatively and narratively.

The information collected will be made available as a downloadable document from the NIHR CLAHRC South London and HIN websites.

2. Describe the enablers and barriers associated with staff accessing development opportunities in this field.

This work began with 1:1 interviews with key leaders driving development in this area. A snowball sampling approach was used where respondents identified initially by the Steering Group in turn

suggest further respondents in order to increase the breadth of representation in the sample. Fifteen interviews were carried out and five interviewees were identified through the snowball sampling approach. These interviewees were all developing or delivering innovative initiatives to support service improvement work.

Where possible interviews were carried out (by the lead author) via Skype and recorded with permission of the interviewee to facilitate review and analysis of the information. Where this was not possible notes were taken including verbatim quotes where possible or paraphrased quotes where necessary. No personal identifying information has been attached to any themes or quotes.

Analysis began as soon as the first interview was completed to identify important emerging concepts. When new concepts emerged, previous interviews were reviewed to check for examples that might have been missed on first analysis. As the work progressed concepts were organised under theme headings and gaps in understanding were identified for exploration in future interviews.

The next stage of the work involved attending existing meetings and setting up virtual focus groups via conference call with key groups that were likely to have important insights to share as identified through the 1:1 interviews (table 2), carried out by the authors. In addition transcripts of interviews and presentations available publicly via the Health Foundation were also analysed. Where potential participants were identified who were keen to be involved but unable to make the meetings/focus groups, short 1:1 phone interviews were arranged.

Group	Associated areas of insight
Primary care	Leadership skills, resources and structural barriers and enablers, awareness, incentives and disincentives
Staff with few or no formal qualifications	Awareness, resources and structural barriers and enablers, personal motivation, language issues.
Service transformation, quality and patient safety leads	Strategic drivers, structural barriers and enablers, resources, commissioning levers, leadership skills, credibility, service user involvement
Trust Boards	Strategic drivers, structural barriers and enablers, commissioning levers, leadership skills, sustainability
Researchers	Awareness and eligibility for current education, leadership skills

Group	Associated areas of insight
Current and former Fellows and MSc students (MRes and Improvement Science)	Incentives and disincentives, widening participation, sustainability
Ward managers, service heads and workforce development leads	Structural barriers and enablers, incentives and disincentives, resources

Table 2: Groups likely to have specific insights to share on barriers and enablers

Themes for the group discussions were derived from the 1:1 interview analysis. A specific attempt was made to identify links between concepts seen in the data from the 1:1 interviews and the group discussions in order to facilitate the development of a narrative describing the barriers and enablers as well as a table of themes and concepts. Views were recorded in writing including quotes for key points. These were noted verbatim where possible but some paraphrasing was required in order to manage the discussions and make a good record.

Analysis followed the same approach used for the 1:1 interviews. Once the group discussions were complete a narrative was developed describing the themes and concepts and links between them.

3. Make recommendations to inform the curriculum design and delivery method for the CLAHRC's MSc in Implementation Science

The information obtained about education opportunities available currently was reviewed in parallel with the information about barriers and enablers in order to identify gaps in current provision in relation to the needs identified by our participants.

The information about barriers and enablers was then reviewed again in order to make recommendations in relation to the following topics:

- Marketing and course title including potential target markets
- Recruitment and selection
- Course content
- Delivery methods
- On course support
- Potential partnerships
- Alumni networks

Findings

Education opportunities available to support the development of skills in the field of Implementation and Improvement Science

Course information verification

Responses to the request for verification of course information were received for 38 of 49 courses found. For this report all courses found have been included, whether verified or not. However, it should be noted that the verification process has led to the removal of some courses by the HEI teams (usually due to discontinuation), addition of courses by the HEI teams and correction of individual data items, and the 11 courses (at seven HEIs) could be subject to change.

Descriptors of HEIs and courses identified

Numbers and locations of HEIs with courses

The HEIs in London whose websites revealed relevant courses numbered 20, and the Open University as a national distance learning HEI was added to that. Of the 21 HEIs included, no courses related to improvement science were identified at 9; the remaining 12 HEIs yielded 49 courses. These 12 HEIs were spread across the three London regions and nationally as follows: south (n=4), north-west (n=3), north east/north central (n=3) and national (n=1).

Focus on improvement science in the identified courses

The courses included in this identification process all mentioned improvement science or implied it in their title or descriptors. From reading of these titles and descriptors, two groups were created to illustrate the range of depth of focus on improvement science, as follows:

Courses focused completely on improvement science, that is, with improvement or innovation in their title and descriptors.

One example of this type of course is the *standalone module named* 'Innovation for Excellence - Leading Service Improvement' for nurses, midwives and AHPs that also forms part of the MSc/PGCert/PGDip Leadership and Service Improvement in Health Care:

"The content of this module is built around the three core roles of leader, manager, practitioner and partner as recognised in 'A High Quality Workforce' (Department of Health, 2008). Innovation in health and social care is the right and responsibility of every practitioner/ carer utilising leadership, management and advance practice skills and competences to continually improve and evaluate the care/service that is delivered. Partnership working and working across professional and organisational boundaries are key to achieving this. The module explores leadership and management of innovation, partnership, learning practices and organisations and introduces

business skills to enhance the practical aspects of implementing and evaluating change designed to achieve quality improvement.” London South Bank University

Eleven courses have been categorised in this way and each of these is listed against its hosting HEI in table 3.

Course title	HEI
Health Improvement Project	City University
MSc Improvement Science	University of West London
Applied Leadership and Service Innovation in Occupational Therapy	London South Bank University
Facilitating Change in the Workplace	London South Bank University
Delivering an Evidence Based Service	London South Bank University
Innovation for Excellence - Leading Service Improvement	London South Bank University
Leadership and Service Improvement PgCert/PgDip/Msc	London South Bank University
Service Delivery and Quality Improvement Module*	Middlesex University
MRes / MPhil /PhD Management Science and Innovation	UCL
Problem solving and improvement: quality and other approaches*	Open University
Post grad cert/ diploma/MSc in Systems Thinking in Practice	Open University

Table 3: List of courses where improvement science is the main focus of the course *Not verified by the HEI

Courses where the topics may be considered closely related to improvement science

For example, courses focused on leadership, management or evidence-based practice as indicated in their titles, AND where the course descriptor implied an emphasis on translational learning to enable improvements in health care.

For example, this course descriptor for a course that could be taken at a range of academic levels (Fd/BA/BSc/MA/MSc Applied Professional Studies):

“The programme is designed to prepare health and social care practitioners with the knowledge and understanding to actively intervene in change which advances and improves the quality and professionalism of health and social care practice.”

Each of the 38 courses identified as belonging to this category is listed with its hosting HEI in table 4.

Course title	HEI
Higher Diploma Professional Practice in Leading and Managing Care Services	Middlesex University
MA/MSc Professional Practice (Health, Social Care, Public and Community Sectors)	Middlesex University

Course title	HEI
Doctorate Professional Studies	Middlesex University
Professional doctorate Health Science	University of West London
Professional doctorate Nursing	University of West London
Professional doctorate Midwifery	University of West London
Professional doctorate Business Administration	University of West London
MRes Clinical Research	City University
MSc Health Services Research	City University
Evidence based practice (radiography)	City University
MSc in Advanced Practice for Health Professionals	University of East London
MSc Physiotherapy	University of East London
MSc Podiatric medicine	University of East London
MSc Advanced Practice in Health and Social Care	University of Greenwich
Fd/BA/BSc/MA/MSc Applied Professional Studies	University of Greenwich
MRes Clinical Research Design and Management*	Imperial College
MRes Diabetes and Obesity*	Imperial College
MRes Translational Medicine*	Imperial College
MRes Clinical Research, Human Nutrition Pathway*	Imperial College
Masters in Clinical Research	Kings College London
Evidence Based Decision Making in Healthcare	Kings College London
Measurement and Evaluation of Healthcare Practice*	Kings College London
MRes Clinical Practice	St Georges, University of London
Bringing Theory and Research into Practice*	Kingston University
Executive MBA	London South Bank University
Executive MPA	London South Bank University
Coaching and Mentoring for Leadership in Health Care	London South Bank University
Strategic Leadership in Health Care	London South Bank University
Leadership and Service Development for ANPs	London South Bank University
Leadership Skills for AHPs	London South Bank University
Clinical Leadership	London South Bank University
PG Cert/ Dip/MSc Leading and Managing Health and Social Care*	University of Westminster

Course title	HEI
PG Cert Health and Medical Sciences (Quality, Information & Safety)*	UCL
Cert/PG Dip / MSc Advancing Healthcare Practice	Open University
MSc Clinical Leadership	Kingston University
MRes Biomedical Research	Imperial College
Leading Change in Mental Health Practice	Kingston University
Evidence Based Practice	University of Greenwich

Table 4: Courses where improvement science is presented as a topic/work-based project

*Information not verified

Academic level of the courses

The majority of courses identified are presented at postgraduate level, either as a postgraduate certificate, diploma or master's degree, or as academic credits at this level. The type of award, FHEQ levels and academic entrance requirements are presented in tables 5 and 6 respectively.

FHEQ level	Number of courses
4, 5, 6 or 7	1
5	1
6	2
6 or 7	3
7	32
7 or 8	1
8	3
Postgraduate unspecified	3
Not known	3

Table 5: FHEQ level

Type of entrance criteria HEI courses	Number of courses
None	1
Academic only	11
Academic and work experience	21
Academic and health professional registration	3
Academic, work experience and health professional registration	10
Work experience and health professional registration	2
Not known	1

Academic entrance criteria for HEI courses	
No academic entrance criteria	2
Evidence of study at level 5	4
Undergraduate degree, grade unspecified	12
Undergraduate degree at 2:1 or above	12
Undergraduate degree at 2:2 or above	11
Master's degree	6
Dependent on level of study taken on within a course	1
Not known	2

Table 6: Entry criteria

Accessibility

The accessibility of the identified courses is described according to the course length, full time and part time options, delivery mode and cost.

Courses vary in lengths, from short, standalone modules to many years' doctoral study. All bar one course is available part-time, and several are only available part-time. The course lengths and full or part time options are shown in table 7.

Length of course	Number of courses
Short course/standalone module	18
One year full time only	2
One year full time/2-4 years part-time	13
Up to three years part time only	4
Three to nine years part time only	9
Three years or more full time/ four years or more part time	1
No time limit (OU)	2

Table 7: Course length and full/part-time options

The majority of the courses were described as being offered in a combination of taught classes on campus and a research or other work based learning element (n=25.) The remainder of the courses were described as taught on campus only (n=11), distance learning (n=7), e-learning (n=1), blended learning (campus and on-line) (n=2), and with three still unknown (unverified data).

The cost of the courses varies mostly by length and/or intensity of the course, with fees advertised as being those applied to any course at that level of study in that HEI. The only course for which the student would receive a stipend is the MRes Clinical Practice, where the student's salary is covered for the duration of the course.

Non-HEI awarding courses

Other learning opportunities in improvement science were identified as short courses (mainly online), in medical academic careers and in fellowships.

Short courses

Nineteen courses were identified and these were mainly available on-line. Some could be accessed by anyone (e.g. those offered at IHI), others to particular professional groups registering with the provider (e.g. those offered at BMJ Quality). Those at organisations such as IHI are highly focused on improvement science; others are in related areas and are very short – usually 1-2 hours, with CPD accreditation. These courses, and their providing organisation, are listed in table 8.

Course	Provider
Organising for Quality and Value	Shaping Health International (delivery of specialist programmes developed by the NHS Institute for Improvement and Innovation)
An Introduction to BMJ Quality Improvement	BMJ Quality
On Demand: An Introduction to the Model for Improvement	Institute for Healthcare Improvement
Fundamentals of Improvement	Institute for Healthcare Improvement
The model of improvement: your engine for change	Institute for Healthcare Improvement
Measuring for Improvement	Institute for Healthcare Improvement
The life cycle of a quality improvement project	Institute for Healthcare Improvement
The human side of quality improvement	Institute for Healthcare Improvement
Building transformational change capability and capacity - Foundation, Practitioner, Advanced Practitioner, and 'Train the trainer'	NHS Improving Quality
Improving Care: More Method, Less Uncertainty (measurement masterclass)	NHS Improving Quality
Implementation Science Masterclass	NIHR CLAHRC South London
Foundations of Improvement Science in Healthcare	SAA Soft [http://www.saasoft.com/]
NICE: Evidence into practice	BMJ Learning
NICE: evidence into practice - how to make evidence based decisions	BMJ Learning
NICE: Evidence into practice – how to bring about change	BMJ Learning
NICE: evidence into practice - how to use audit to improve patient care	BMJ Learning
Clinical leadership and effecting change	BMJ Learning
Introduction to change management	BMJ Learning
Becoming an agent of change	BMJ Learning

Table 8: Short courses

Fellowships

Eleven Fellowships of relevance were identified, either on national programmes or local (usually CLAHRC) initiatives, as follows:

National - Quality Improvement Fellowships (Health Foundation), Knowledge Mobilisation Fellowship, Doctoral Research Fellowships (NIHR), Academic Training Programme Fellowships for Nurses, Midwives and Allied Health Professionals (NIHR), Innovation Fellowships (Royal College of GPs/Peter Sowerby Foundation.)

Local – Improvement Science Fellowships (King's Improvement Science), Improvement Leaders Fellowship Programme (North West London), Innovation Fellows (South London HIN/CLAHRC), Fellowships in Clinical Leadership ("Darzi Fellowships") (London Leadership Academy with Centre for Innovation in Health Management [CIHM], University of Leeds); Darzi Fellows (South London

HIN), and forthcoming fellowships (CLARHC North Thames UCL (with academic partners Institute of Education, University of London, Queen Mary University of London, University of East London, London School of Economics and Political Science, London School of Hygiene & Tropical Medicine).

Most of the fellowships appear to be held for one or two years. All bar that of the North West London CLAHRC (open to managers and service users) appear to be open only to health professionals/clinicians with experience and an enthusiasm for improvement.

Medical academic careers

The five medical schools in London offer academic medical career pathways. The stepped structure for those medical graduates wishing to train for and follow an academic career is described on the NIHR website (<http://www.nihr.ac.uk/funding/integrated-academic-training-programme.html>)

Key information taken from the website is included here for ease of reference:

- Academic Foundation Post, consisting of one year of medical foundation training (typically 3 x 4/12 rotations) and one year with two clinical and one academic element (i.e. one third of the post's time is academic, attached to an academic unit, either working on a project or teaching)
- The NIHR Integrated Academic Training Programme (predoctoral) NIHR Academic Clinical Fellowships (ACFs)* are specialty training posts that incorporate academic training and allow medical and dental trainees to undertake 25% research or educationalist training and 75% specialist clinical training over 3 years (4 years for GPs). During this time, alongside clinical training, ACFs develop their academic skills and are supported in preparing an application for a Research Training Fellowship (to undertake a higher research degree) or an application for a place on an educational programme (leading to a higher degree). Success in these applications is defined as the end point of an ACF.
- Doctorate
- The NIHR Integrated Academic Training Programme (post doctoral) NIHR Clinical Lectureships (CLs)* are specialty training posts that incorporate academic training, allowing trainees to undertake 50% research or educationalist training and 50% specialist clinical training over 4 years. CLs are aimed at those who are advanced in their specialty training, have completed a research doctorate or equivalent and show outstanding potential for continuing a career in academic medicine or dentistry. CLs will complete their specialty training during this period. Alongside clinical training, CLs will be able to further develop their academic skills and will be encouraged to apply for funding to support further Post-Doctoral or educationalist training.

*ACF and CL posts are allocated to institutional partnerships of University, NHS Organisations/ Trusts and Local Education Training Boards (LETBs), with trainees recruited by the LETBs through open competition via a nationally developed process for academic recruitment run by NIHR Trainees Coordinating Centre.

Key points of interest

This overview of the mapping of the available courses raises a number of points of relevance to the development of improvement science courses for South London and to the promotion of the courses and fellowships already found to be available.

The data itself suggests that there is a body of academic and other formal opportunity for health care professionals in South London, and courses appear to be applied to the workplace in many instances. However, the courses and fellowships involve 'big commitment' in time and money and tend to be at the higher levels academically demanding strong prior academic achievement at degree or Masters level (although some pertinent short courses do exist.) There is very little available via distance or e-learning. The majority of opportunities appear to be pitched at experienced clinicians, and some at managers, but with the exception of the fellowship programme at the North West London CLAHRC, little to nothing for non clinicians. The courses use widely varying terminology, but it is clear that, when you do a systematic search such as this, there is a lot of improvement science wording nested in course content/topic descriptions. The process of undertaking this mapping exercise raises the issue that it was not always easy to find the courses, with searches involving multiple terms and layered routes around websites. It is difficult to compare content and value for money across courses, even within HEIs. It is also quite possible that pertinent courses have been missed where HEIs have not engaged fully in the verification process.

Barriers and enablers associated with accessing and engaging with education in the field of Implementation and Improvement Science

It was a privilege to work with all the participants who were generous with their time and offered important and useful insights based on their experiences. We found four major themes:

1. **Relevance** – participants' views on the value of skills around Implementation and Improvement Science in relation to personal, career and organisational objectives.
2. **Credibility** – ideas about how to build credibility in the field of Implementation and Improvement Science and why this is important.
3. **Valuing practical know-how** – thoughts about the practical skills and leadership capability needed to get research into practice and to improve services.
4. **Sustainability** – insights into how capacity for Implementation and Improvement Science could be maintained over time.

The first two themes offer useful information about how to promote Implementation and Improvement Science and how to market courses in the field. Themes three and four provide information about how to develop the workforce in this area of practice and how to sustain relevant skills in the workplace.

Relevance

Participants came from a variety of backgrounds some with a vested interest in the field and personal experience of it and others from the virtual focus groups, looking in from a distance. All participants talked about the relevance of education in the field of Implementation and Improvement Science. Three aspects of relevance were highlighted:

1. Responsibility
2. Strategy
3. Job satisfaction and career

Responsibility

All participants were clear that quality, safety and improvement are the responsibility of health and social care staff but people clearly experienced challenges in discharging that responsibility. These challenges were around role, authority and time.

Time to learn and time to act was highlighted by many participants, but one gave a very specific example, which highlights the dichotomy well. She described being called in by a Trust where there was a genuine desire to take action to deliver learning to improve patient safety where significant risks had been identified.

“We were asked for an urgent meeting to help them with tools for improvement....you know people were dying.....But then they said: ‘Oh no people would not have time for that’ and I said: ‘Hang on I thought people were dying!’ We have to make it practical and easy for people to do, we got there in the end.”

All healthcare professionals we spoke to and those responsible for leadership in support of staff in bands 1-4 saw quality, safety and improvement as responsibilities embedded in NHS job roles.

Some Doctors and Dentists were very clear that they needed to develop skills for service improvement because it was a professional responsibility for which they would be held to account, citing the GMCs requirements for re-validation. Others just talked about an assumed responsibility inherent in every doctor and at the heart of why people entered the medical profession in the first place.

Busy healthcare practitioners across the professions were clear that they and their colleagues were totally committed to improvement but pointed out that even completing the necessary paperwork to get ring-fenced time to do any education and development was a burdensome process that acted as a barrier for busy staff who “hit the ground running” everyday. (This issue is picked up again under the theme of sustainability.)

Heads of Service and ward managers felt confident that their staff were committed to quality, safety and improvement but acknowledged that improving quality systematically and continuously was not what was seen in practice. In part they felt this might be because people were not always aware that there might be better ways to do things. In other examples people felt that their staff lacked the skills to drive change through.

“If they thought that what they were doing was bad, wrong, dangerous I am pretty sure they wouldn’t do it. They just don’t have time to reflect and they’re exhausted already.”

“With rare exceptions nurses are committed to quality and safety but they don’t always know how to make it happen. They’ve got their heads down, doing the day job and don’t know how to get traction for any ideas they might have.”

Leaders supporting the bands 1-4 workforce cited the requirements of the NHS Knowledge and Skills Framework (KSF) in relation to the core dimension of “service improvement.”

“It’s in all the generic post outlines. Staff at all bands have to show involvement in service improvement, it’s a responsibility of every job and they have to demonstrate it at appraisal.”

Some Heads of Service however pointed out that mandates like this just drove a tick box approach and felt that staff commitment to improvement could potentially be watered down by these regulations:

“They want to do it but if you say they’ve got to do it, they will just do anything to tick the box and they won’t take time to think ‘how can I really make a difference.’ ”

Our work showed that people had an inherent sense of their responsibility for implementing best practice and working on quality, safety and service improvement and that this was sometimes linked to an understanding that they would be formally held to account. However awareness of responsibility did not always lead to action and there was a sense that regulations could lead to simple compliance rather than systematic and consistent effort. The bureaucracy of regulation and targets were sometimes seen as a barrier not a lever. There was some evidence that some people might lack awareness of evidence-based practice in their area, the practical know-how for service improvement and the leadership skills required to get traction.

Strategy

Participants highlighted several areas of strategic relevance for implementation and improvement work, which raise important points for education initiatives in terms of potential target markets and marketing approaches. Implementation and Improvement Science were seen as strategically important for delivering against targets, driving integrated care, supporting inter-disciplinary working and enabling service-user involvement.

Commissioners, GPs, independent pharmacy contractors, middle managers and executives were very aware of the contractual requirements for improvement associated with the Commissioning for Quality and Innovation (CQUIN) framework as the mechanism for rewarding successful Quality, Innovation, Productivity and Prevention (QIPP) programmes. Commissioners saw these requirements as an improvement tool whilst providers often commented on the bureaucratic burden, which they felt reduced their ability to actually spend time on improvement.

“People need to stop being cynical about QIPP and CQUINs. Contracting is a powerful improvement tool; don’t people want to show me their best work? This is their chance to shine.”
(Commissioner)

“It’s all about performance management and assurance, that’s what gets measured so the real improvement never happens. Perhaps commissioners need some education on this too.” (Provider)

Some participants talked about staff really struggling to develop creative and innovative approaches to meet the financial targets for their service. Whilst some saw Improvement Science tools as potentially useful in supporting them in this area, others commented that people experienced very small effect sizes especially compared to the effort involved in using the tools.

“They think it’s impossible you know we’ve got this huge financial target to meet. They know they’ve tried before and it’s been huge in terms of effort but with very small benefits. After all that they still end up slashing heads so they just go straight for the headcount next time.”

“I think it helps you to be creative. You know you really can save money and make things better, it’s not all phoney.”

Some participants commented specifically on the role of integrated care in driving improvements for service users and saw the tools of Improvement Science as having a role in helping them make integrated care a reality. Again these participants talked positively about process tools, seeing them as a means to make sense of highly complex systems. One healthcare professional talked about that first phase of the Failure Mode and Effect Analysis (FMEA) process where everyone gets together to map a system, as being quite empowering in supporting individuals to understand each other’s roles more effectively.

“FMEA....ideally you’re having 4 meetings....everybody’s in the room together sweating over this stuff..... Most of the learning took place in the first 2 hours where people mapped out what the system was, everybody told each other what they did...All of a sudden everybody could have insight and they were ready to try and create change.”

However the same participant went on the note that the huge effort required to produce the map was often as much as people were able to contribute and there was a sense that people are being put off by complex inflexible tools.

“Creating that into a structured system with numbers and ranking and all the rest a) turned people off and b) we couldn’t get people in the room anyway..... So we suggested general rules of thumb taken from complexity theory.”

Participants in specific service improvement and transformation roles had a positive personal view of the tools and processes associated with Implementation and Improvement Science. They valued the systematic approach to improvement and the way that tools and processes enabled people to manage complexity.

“It is complex and you need to be thorough but that takes time..... I love this stuff it’s really exciting.....but people think I’m a geek.”

Some senior people with responsibility for service improvement felt strongly that they needed their staff to learn one approach to improvement so that everyone learnt to speak the same language. This was seen as an important tool for developing a culture of improvement. Interestingly other leaders and healthcare practitioners were wary of sponsoring a single approach, as they feared that staff would view it as a top down initiative. Once participants explained how he had learned from experience that he needed to offer staff project teams to run the transformation work, drawing on the expertise of healthcare professionals but not demanding too much of their time.

“It’s a very particular view here in this Trust and quite rigid and people resist that I find. I’ve seen it work but everyone’s got to be on board and that’s a big ask.....I think I’ve realized that you have to create teams to do it (improvement) for them but still work with them. It’s a balancing act.”

Participants valued the way in which Implementation and Improvement skills helped create space for different disciplines to work together. One participant talked about how Improvement Science reflected the principles of cross-disciplinary working and how that appealed to him:

“I’ve always worked in an interdisciplinary environment so working with lots of different theories, lots of different methods, lots of different people coming from different perspectives.....I think the improvement science field it really just does represent those principles.”

Specifically participants valued the way in which in this field brought together the academic and practice worlds:

“In the past a lot of this work has been done by academics in isolation perhaps without very much contact with the service. And I think a central feature of Improvement Science is the partnership element between academic researchers and service providers.....I am trying to develop ways of providing real time feedback, useful observations that can be fed back as they are needed to the service.”

Clinical staff working in fields where there was a strong research base indicating a need for change, valued Improvement and Implementation Science skills as tools that gave them a structure for working across disciplines. One course director commented that the sciences of implementation and improvement allow people from diverse disciplines to come together to understand how to implement the evidence base in their field.

A number of participants were passionate about service user involvement. They wanted to empower service-users and professionals to wrestle with the complexity of the change process and

share the experience of the struggles and controversies of change. Professionals talked about co-working with service users to help other professionals understand the value of improvement work:

‘We need to tackle the dissonance between what patients think and how the professionals think they did. This will help professionals see what’s wrong. If they believe things need to be done better they will get the improvement bug. Real time feedback is a big opportunity.’

Service-users who had experienced learning in improvement methods found the experience empowering. They valued the opportunity to understand the healthcare world better in order to interact with professionals as equals and so learn how to be more influential. Again learning in practice was considered critically important.

“Please you need to open up opportunities for patients to learn in practice. It’s hard for us we only have access to the services we use we need to broaden our experience to learn to speak the language and understand everyone’s role.”

Some primary care participants specifically commented on how improvement and implementation skills could enable service users to take responsibility for their own safety and the safety of people in their community. This was linked to concerns around the pressures of public demand for health services balanced against recognition that the public need to know how to get reassurance, advice and support to help them make the right decisions about when to access services. Participants felt that skills around improvement would help service users to ask powerful questions to help drive improvement as an alternative to simply submitting a complaint.

“They need to know how to ask: ‘How did this happen?’ ‘What factors led to that?’”

From a strategic perspective participants cited many advantages associated with Implementation and Improvement Science that are helpful in positioning and marketing future education initiatives. Equally participants were forthcoming about their reservations and it will be important to bear these in mind when promoting any educational initiatives. This work also gave some helpful insight into the different groups of stakeholders that might benefit from Implementation and Improvement Science skills including service users and commissioners.

Job satisfaction

Participants talked about the value of learning about improvement and implementation for enhancing their experience of work. This value related to the satisfaction of being able to fulfil their desire to make things better for service-users and the opportunity to develop fresh insights through broadened horizons. Some participants also talked about being able to use their learning as a springboard into a clinical academic career or to help them apply for a promotion.

Participants who had experienced learning around Improvement and Implementation Science talked about the strength of passion for patients and service users amongst the colleagues they were learning with. One participant said:

“Most importantly for me there is a real opportunity to have an impact on patients and carers and the staff who work in healthcare as well.”

Several participants discussed how their learning in this area had really broadened their horizons and commented on how they were specifically interested in developing a broad network of contacts to support their work in the future, building a critical mass for change and opening up career opportunities in the long-term:

“It’s made me see things totally differently, you know we can be very cocooned in our own world. I’ve found people from all sorts of different areas who know stuff that can help me get things done. It really opened my eyes to the opportunities out there, it’s taken my career in a totally different direction.”

Participants who had experienced a very traditional positivist education placed huge value on learning from other professionals in healthcare and research, particularly those with experience of social science:

“Mixing with totally different people with a different view of the world has been a fantastic experience for me. I am so glad I took an opportunity to learn with such a diverse set of people and not just another bunch of doctors.”

Many participants who had studied in the field went back to their previous job roles but some talked about a specific ambition to start a clinical academic career.

“I needed the confidence for a clinical academic career and working around translational medicine has given me the boost to look at different types of job roles with an academic and a practice base.”

Some participants used their learning to apply for promotion into roles with more leadership responsibility, but some commented that many colleagues did not make the link between Implementation and Improvement Science and healthcare leadership:

“I thought well you can’t lead if you can’t drive change, healthcare is always changing but people just see leadership as a management thing and think they need to do a management course. They think what I’m doing is academic but it’s actually very practical.”

The personal drivers for participants in relation to their involvement in learning in this field reflected both planned career moves and a more general interest in taking a fresh look at their practice in collaboration with a wide network of people. It was clear that learning in this area is not just seen as something for people interested in a Clinical Academic Career but often just as something that breathed new life into people's professional work.

Develop credibility

Participants expressed some reservations about the credibility of Implementation and Improvement Science. In some cases these reservations were associated with the evolving nature of the field and the need for more information. Some participants were concerned that the field was too politicized and so regarded with suspicion by many practitioners. Three key actions were identified:

1. Strengthen expertise
2. Focus on impact
3. Commit to genuineness

Strengthen expertise

Participants felt that more expertise was needed in both the academic and the practice settings.

There was a sense that whilst centres of excellence were helpful, all universities needed to develop expertise in the field as part of their standard research portfolio. People felt that the university focus had been almost exclusively about developing the evidence base for different interventions and that there needed to be a shift towards developing an evidence base about how to implement evidence-based practice and how to drive continuous improvement.

“You don't get this stuff from your a general Masters or even PhD, it's like the next step. You've worked out how to do something better now you need to look at putting it into practice and seeing if it really works. It's a different set of skills, I mean you still need to the rigour but you've got to be able to talk to people about your work in a language they understand and understand their world.”

Participants talked about mastery and expertise being needed in practice around the leadership skills for implementation and improvement. There was particular concern around the skills required to create the environment for change, for example:

“The only way that this will succeed is if boards and leaders get it. We need to talk to the Leadership Academy about their Board Development Programmes and how we weave this in..... It's about how you structure meetings and manage teams to generate the energy for improvement.”

“We need to give people the skills to say ‘no’ sometimes because our systems are set up to measure performance not improvement and if people are spending all their time generating data for performance management then they will never have any time for improvement.”

Our work showed that people want access to experts and there was concern that there were not enough experts either in academia or in practice. There was a sense of a need to develop people who are able to distinguish between performance management and improvement and stand up for the value of improvement.

Focus on impact

Participants acknowledged that the field was a new one and that understanding was still evolving. People wanted to see more research and evidence generated to show return on investment and impact on patient outcomes in particular but also stressed that attention needed to be paid to how impact was communicated to ensure the message was understood across stakeholder groups.

“It can be hard to get clinicians into this stuff, more focus on using clinical outcome measures would help I think.”

“There is an increasing amount of scepticism out there.....people are saying where’s the proof that this works.”

There was also a strong sense that real life stories told in everyday language had an important role to play in communicating the impact of Implementation and Improvement Science. Participants were interested in the role that service users had to play and there was interest in how service user experience information could be collected and used effectively.

“I’d really like to get people together to find out about their successes with involving service users you know share approaches and tools.”

Participants also mentioned raising the profile of Implementation and Improvement Science in the health media, rather than leaving the information buried in scientific journals. People felt that the language used in the field could be quite alienating and confusing. There was a sense that practitioners and service users are simply interested in improvement and that perhaps there are many sciences of improvement embracing the different definitions of implementation science, improvement science, knowledge mobilization and knowledge translation.

“People on the wards staff and patients they care about improvement you know improving health outcomes, improving experience, improving safety.....they don’t care about science it puts them off.

We know the science bit is about it being robust and credible so it matters to us but I'm not sure it matters to them."

"The terminology is very hard but it's just about getting proven approaches into practice and making sure they actually improve things for patients in some way."

"None of our current batch of terms makes enough sense. But I think improvement is the best of them. Improvements in quality, safety and value. Implementation is too instrumental. Why? For what purpose? It sounds too much like a project and we have too many of these."

This work showed that there is interest in the value that Implementation and Improvement Science can add but scepticism about how real that value is. People wanted more research but were also clear that for the field to make an impact it was necessary to have information in language that all stakeholders can readily understand and relate to.

Commit to genuineness

There was concern amongst some participants that there had been too much "evangelization" in the past and there had not been enough honesty about what we don't yet know in relation to the impact of Implementation and Improvement Science.

"Effect sizes can be really quite small and people need to understand that."

"The way that the impact of a project is presented is political, people sense the spin, there is a lot of cynicism out there."

Participants also felt that there would be much better engagement with improvement work if it could be successfully de-coupled from the notion of cost saving as the driver and if people were free to develop and evolve approaches that worked for them locally.

"There is this assumption that things either work or they don't, you just have to hit people with a hammer to get them to do something.....But that just doesn't work systems are complex, improvement can be blocked just because a porter leaves and a new one joins. There needs to be more about human factors than a standardized process."

It was interesting that participants in roles at service delivery level often felt that boards and managers were only interested in saving money, whilst participants who worked at board level talked a lot about patient safety and experience. There seemed to be a lack of trust between the two groups that made it difficult for managers to get traction with improvement and difficult for people involved in service delivery to believe that services could be both more effective and more

efficient. One participant felt that project managers and delivery managers who often sat in the middle of these two groups sometimes talked in management terms that were very off-putting for clinicians and needed more support to reflect the passion for improvement at Board level accurately.

“We need to get to the delivery managers they are bright but some of them have not had the right development. They need to know how to talk to clinicians and they need to understand the coalface.”

Participants were very keen to ensure an honest and open presentation of the value of Implementation and Improvement Science in terms that all stakeholders could understand. All participants were committed to the field in terms of what it offered in support of patient safety, outcomes and experience and health and wellbeing generally but different tribes expressed some suspicion about the motives of others.

Value practical know-how

Participants gave a clear message that the real key to enhancing capacity for implementing evidence based practice and improving practice was about helping people develop practical skills and “know-how.”

There were 3 important aspects of this theme:

1. Support learning from successful improvers
2. Support learning in practice
3. Develop the leadership skills for improvement

Supporting learning from successful improvers

Successful improvers were valued as mentors, trouble-shooters and inspirational role models.

In terms of mentorship, successful implementers and improvers were valued for a number of reasons. Participants reported that they felt they really needed contact with implementers and improvers who could open up doors for them through their networks. There was interest in developing a large pool of mentors as it was acknowledged that different people needed mentors with networks in different geographical areas, organizational types, professions and specialisms. Participants also talked about the value of successful implementers in terms of their ability to be critical friends.

“People who have done it really make you believe that you can do it. And they say I tried this or that and maybe you should talk to this person.”

“I would say to people find someone from a totally different world, a different profession, working in a different area. I know people feel that there’s value in working with their own kind but I would really encourage them out of that. If you stick with your own kind they’re too likely to agree with you.....what you really want is for them to say hang on a minute, let’s think about this.”

One challenge that participants highlighted was that people who are good at quality safety and improvement work are usually really busy. Participants who had been fellows or students were clear that a highly skilled and successful implementer or improver cannot help people as a mentor unless they are prepared to commit significant time to the role.

Other participants had experience of working with successful improvers as trouble-shooters to help them or their students/fellows overcome blockages in their work.

Participants talked about the value of technology in opening up access to improvement experts internationally. Several participants were involved in developing Massive Open Online Courses/Communities (MOOCs) and a key element of these courses/communities was the involvement of experts with strong credibility in terms of delivering improvements. NHS Improving Quality (NHSIQ) is developing a MOOC in partnership with Jönköping County Council and the Academy for Health and Welfare Improvement at Jönköping University in Sweden. An NHSIQ press release about this work (NHSIQ March 2014) states:

“The early thinking was to develop a course along fairly conventional lines with around five modules supported by evidence-based material. But the focus group proposed a more dynamic approach, centring on the experience of people actually leading change.”

Participants also talked about the loneliness of improvement work and the need to have sight of role models who had battled on despite difficulties. Inspirational “masterclasses” were valued alongside case studies of successful improvement from internationally recognized experts in the field.

“You can put case studies out there, that’s good it shows you that it can be done. There’s not enough of that I think. But then again sometimes you need a more interactive thing, a bunch of people debating an improvement drawing from each other and from the best people.”

It was clear that successful implementers and improvers from a range of backgrounds and experience were considered a very valuable resource as long as they were able to commit the time to offer appropriate support. Technology was also valued as a means of increasing access to expertise.

Support learning in practice

Many participants felt that the best place to really learn about improvement was in the practice setting. There was a sense that learning about models and processes in isolation was futile. There was a strong appreciation of the role of “human factors” in safety and improvement work.

In relation to “human factors” many participants commented on the unpredictability and ambiguity of healthcare practice. Those who had experience of this were aware that unpredictability and ambiguity meant that it was necessary to “think on your feet” and modify tools and processes for doing improvement and tools and processes for delivering services to make them useful in particular settings at particular times.

“So much about change is about the behavioural side, you know how people interact in this specific team, what’s the politics in this specific place, what know-how is hidden away in that person’s brain that is making things work here?”

“So I’m thinking well it looks like this today but how will it look tomorrow when different people are on the shift and how will it look at the weekend when you can’t do this and that. You need to see that stuff in real life, you can’t get it from a textbook”

Some participants had benefited from or attached value to extended periods of time doing improvement work alongside teams with more experience in the field in the practice setting. These experiences were described as secondments, internships or apprenticeships.

“Once people try it they come up against barriers as well.....Do people have the meeting skills....does FMEA really work? A lot of these techniques actually require skills rather than knowledge..... You try and do it and realize how much you don’t know. It’s the stuff which sort of got kicked out the window with competencies...That sort of knowledge of how to do things which is never written down.My view is our Fellows should all apprentice 3 or 4 people who work with them on projects ...you know go into the room with the CEO with them.....because they don’t know how assertive to be, how to give way on some things...it’s much better than saying ‘oh negotiating skills we’ll find you a course on that’.”

Participants also valued having the opportunity to go on visits to support the development of their improvement skills. Although these experiences were by their very nature shorter (one day-a week), participants still felt that there was value in seeing centres of excellence at first-hand:

“It was great we went to Boston and we visited different places. We got to talk to observe and then talk to people and find out ‘why do you do it like that’ or “how do you make that work”

“We met their leadership team in their ED and I know that there’s an awful lot that’s going to come up from that because of the fresh eyes to look at the ways they’re working there..... They work so closely together as a team, I was really struck by their mutual respect for each other , whether clinical or notI just picked up in that one visit the leaders’ energy. The sense of enthusiasm and energy and drive, but also the mutual respect whether clinical or non clinical.”

Participants also expressed concern for people in centres of excellence who they felt might experience burn out with so many people wanting to visit them and see how they do things.

Participants who had studied in the field of Implementation and Improvement Science talked about the importance of learning with their colleagues in practice and specifically the role of action learning sets.

“A lot of medics particularly and to some extent other professions have very little management training and understanding..... Those consultants who have bought into this and worked on action learning sets together have said it's just revelatory....good improvement is across all these silos that we have.....involve everyone who walks onto a ward.”

The importance of the practice side of learning came across very strongly. Although people understood the importance of models and tools they were clear that applying these resources led to completely different and invaluable learning that needed to be a core part of any educational initiative. This was clearly tied up with the complexity of practice and issues around human factors.

Developing the leadership skills for improvement

Participants expressed the view that leadership skills were often more important than knowledge of techniques, tools and processes. Participants highlighted a range of different skills that seemed important to them.

Influencing skills were mentioned by a number of participants. Researchers felt they lacked the influencing skills to get their research findings into practice and frontline staff and transformation managers talked about needing influencing skills to manage politics within and between organisations.

“I was just exhausted, it was so frustrating even getting them time to tell them what I'd found. I thought ‘am I saying it wrong?’ you wonder you know am I so close to it now that I can't talk in everyday language.....And I just can't get near the people with the power, so I think what's the point in doing research if you can't get it into practice.”

“You need to know the politics and it's different across different parts of the system, different organisations. You've got to be able to say you know this is why this would help you or better still get them to say it. It's a skill, it's not just communication.”

Other participants talked about understanding stakeholder engagement and knowing how to engage people from different disciplines and organisations as well as service-users. This was partly about how to communicate and build energy and enthusiasm for change across different groups but also about understanding different people's roles in service delivery pathways better.

“Stakeholder engagement, you know people think they can do it but it’s complex. You’ve got to show respect, show you’ve taken the time to understand what they do.”

Some participants felt that they needed help with building resilience and dealing with set-backs positively. Many participants had experienced exhausting battles to change practice.

“I have come close to giving up. Just when you get going something happens from outside and the goal posts move. You’ve got to be able to hang in there and some people really struggle with that I think.”

Measurement and evaluation were also areas where participants felt strong leadership needed to be built. There was an acknowledgement that some staff believe that there is too much measurement but at the same time participants were concerned that if people did not have the skills to work out how to measure something it would be hard to ever say it had been improved.

“What is really key is that you are measuring the right thing and that you are not enslaved by the measurement but empowered by it. So I think having key senior individuals, not necessarily those that are hierarchically the most senior within organisations but those that have an important part in the improvement work, for them to actually have a clear understanding of the role of measurement and be able to communicate that with others is very important in my view.”

It was clear that the leadership skills required for implementing new practices and driving service improvement were varied and essential to making a difference in practice. These skills were important for those trying to implement the findings of their research and for those trying to scale up change and evaluate it’s impact in different settings.

Sustainability

Participants highlighted the importance of ensuring that educational initiatives were able to deliver sustainable improvement in capacity for service improvement work. Some participants were concerned about wider determinants of sustainability across the health and education system. Others focused more on factors within the direct control of those developing the educational initiatives. There were three facets of this theme:

1. Funding
2. System levers
3. Partnership

Funding

Participants expressed significant concern about funding issues, in particular ensuring the stability of funding streams and funding for backfill and protected time.

In terms of stability, participants believed that interest ebbed and flowed with political priorities and central initiatives. People expressed the view that this made planning difficult both for service provider organisations and universities. With regard to the former the issue was ensuring an ongoing pool of people with the right skills for improvement but for Universities concerns were expressed about the investment required to set up relevant educational initiatives. For example one participant who had set up an educational initiative in this field said:

“Well what do you plan to do about funding? We have LETBs now but even that’s all changing, these things change with the political administrations so no-one can commit to the long-term even if they wanted to.”

Another participants had experienced re-organisations in the past that had jeopardised the sustainability for capacity building initiatives in this field:

“You know if you don’t keep at least some of the people you lose this stuff, it goes with the people that go in the reorganisation and I don’t know what you do about that. I mean we had all these processes to catalogue it all and create libraries of knowledge but there is so much..... without the people it dies.”

Course directors and those in transformation and improvement roles were acutely aware of the impact of lack of back-fill. People were aware of the various fellowship schemes but concerned about the limited number of fellowships available. There was an understanding of the importance of competition to promote standards but also a sense that without critical mass, progress would never be made. Participants also expressed the view that there needed to be leadership from board level as managers and service heads would not make the time to think creatively about how they could manage the backfill challenge unless it was clear that the executive team expected staff to have protected time.

“Managers do what the Board tells them to do and so boards need to make it absolutely explicit that they expect people to have protected time to learn about and do improvement.”

A modular approach was strongly supported as a way to give people new knowledge and skills in bite sized chunks that might be more manageable both for the learners and for their employers.

“We need to give people the chance to say well I did that leadership course last year but now I’m really struggling with measurement. You know and find a module on that. Then they’re just asking for a small amount of time out of the workplace and maybe that’s more manageable. You know they still get their credits.”

“Modules are a really exciting option. I know people in my team who might do a module and get the bug and then I’ve got another person into this stuff.”

Some participants were concerned that people were moving from practice into academia in order to study in the field of implementation and improvement and highlighted the negative impact on healthcare practice associated with this:

“Many people have an interest in the field but cannot study without leaving their roles because there is no funding for backfill. Obviously this is counter-productive in terms of getting theory into practice and it’s the most significant barrier.”

“You can talk about champions and leadership but at the end of the day it’s about time and money, if you haven’t got those it’s not going to happen. You’re not going to build capacity, you’re not going to see improvement at scale.”

Some participants were quite adamant that unless secure funding streams were provided and expanded other initiatives in the field would fail. Others were more sanguine acknowledging that lack of adequate funding and backfill were barriers that would impede the scaling up of change whilst almost accepting this as a feature of the current landscape that could not be changed.

System Levers

Education and service commissioning were considered powerful levers and different groups expressed different perspectives in these areas. The Research Excellence Framework was also considered an important lever on the academic side in terms of driving joint appointments.

In relation to service commissioning some participants felt that contract specifications and Key Performance Indicators were important tools, although the focus was on setting a requirement to demonstrate improvement rather than requiring organisations specifically to give their staff ring-fenced time for improvement work or learning.

“People need to stop being cynical about QIPP and CQUINs. Contracting is a powerful improvement tool; don’t people want to show me their best work, this is their chance to shine.”

Participants with insight into the education and workforce development world talked about weaving a requirement to support staff with improvement skills into specifications for a wide range of educational provision from induction and apprenticeships through to pre-registration programmes, CPD portfolios and research degrees and fellowships. Participants were very sensitive to the need to avoid over-loading curricula by adding yet another requirement but felt that aspects of curricula that were already present could be strengthened to support capacity for improvement. For example:

“You might get traction by engaging with those delivering apprenticeships. The advantage of this is that people will be properly assessed. You won’t be able to change the units but you can influence how quality and safety is taught within those units. Why not consider picking a couple of apprenticeships and piloting something in South London where you work with the apprenticeship

provider to build in improvement skills and knowledge?”

“ You need to talk to the Leadership academy about their board development programmes and how we can weave this agenda into their curricula. We need undergrads to learn about improvement science but not by adding to the curricula just delivering them differently. We need to think about how we can use practice learning to promote improvement through inter-professional working. Teach people to work with and learn from people who are not their normal colleagues.”

Participants were keen to ensure that education commissioning both supported diversity in terms of access but also maintained standards by ensuring that the education providers used robust recruitment approaches to attract and enrol the best people.

“You can commission for diversity but you need to think about outcomes and outputs. You need to ensure that the people that get brought on board have the right potential to get the qualification and then to do a really good job in practice. Let’s not just put numbers through there are different levels in this.”

People in leadership roles in HEIs were clear that the new Research Excellence Framework had the potential to act as a substantial lever as universities now need to demonstrate the reach and significance of their research. University participants described how they had significantly strengthened their ability to demonstrate that their research led to significant improvements in terms of patient outcomes, experience and population health, emphasising knowledge translation as opposed to simply adding to the evidence base for best practice. Partnerships and joint appointments with service provider organisations were considered essential for this and joint appointments bringing senior clinicians into the university environment were considered a useful approach.

Participants believed that service commissioning could be used to embed an expectation for improvement and that education commissioning could enable organisations to deliver against this expectation. There was interest in introducing implementation and improvement skills across the workforce but also interest in ensuring that education commissioning delivered some experts with the potential to get through educational programmes successfully and then deliver complex change in practice. Participants from Universities expected to see a significant shift driving research around implementation and improvement associated with the new demands of the Research Excellence Framework.

Partnership

Partnership and collaboration were often cited as important tools for ensuring sustainability. There was an awareness that the evolving interest in the field meant that there was a risk of duplication of effort and risk that the opportunity to create strong networks of skilled passionate people might be missed.

Participants were keen that new initiatives should be co-produced and explicitly that service users should have a core role in this. People talked about improvement being about systems and how people from all parts of the system needed to be involved in developing new initiatives. Participants were also keen to ensure that people were properly supported to do the co-production and acknowledged that this was hard particularly in relation to the meaningful involvement of service users. However this did not dampen participants' enthusiasm for ensuring that it happened.

“We operate in complex systems. Good improvement is across all these silos that we have...we need to have something that does involve everybody who walks onto the ward from the cleaner to the consultant.There are relatively few examples where this works.Even in manufacturing.Remember Toyota have had over half a century to get this right...so it's a long-term cultural change that has many facets.”

Participants pointed out that supporting development in this field across the full range of stakeholders would require the creation of robust partnerships with service delivery environments in order to open up practical experience to groups that might find this difficult to access, e.g. biomedical and social scientists, people working in bands 1-4 roles away from the frontline and service-users.

“We need to focus on delivering population benefit....and I think to move forward in this we need to move away from just engaging the best academic and the best practitioners and we need to understand how we can engage and support everyone involved in healthcare to deliver improvements.”

People spoke positively about the National Institute for Health Improvement's Clinical Academic Careers programme but felt that there was scope for expansion to focus more on the best ways to implement evidence based practices and the best ways to drive and evaluate service improvement through changing practice.

“At the moment clinical academic careers are more about the evidence base.....I know we do have skills workshops and stuff that will help with implementation but maybe there needs to be more a next step. I found I thought I was getting what I needed to put it into practice but when it came to it, it was much more like hard work.”

Others preferred the flexibility of Massive Open Online Courses/Communities (MOOCs) as vehicles for supporting implementation and improvement skills more flexibly. The Higher Education Academy (HEA), NSHIQ, the Virtual College and the Health Foundation are all exploring the opportunities associated with MOOCs in this field.

“One way to do it is to develop a MOOC - put all the resources out there so it can be personalised. The academics just navigate people through. Most people don’t go far into it they just use it for job enrichment but those who want to advance practice take a strong set of learning blocks/modules.”

Some participants suggested a proper debate about business models for MOOCs in order to encourage Universities to get involved. People suggested using education commissioning funding to develop the MOOC with universities just making money from those who wanted to be assessed formally, others suggested semi-open MOOCs where LETBs commissioned the material included in the MOOC for open access for staff employed by organisations in their patch, others felt this was against the spirit of MOOCs.

Other participants, particularly those in clinical roles, were concerned about the confidentiality risks associated with MOOCs and online conversations in general. Some clinicians said they had explicitly made a choice to “stay away from” these things as an issue of professionalism.

Other people we spoke to focused less on the open access element but expressed interest in the use of technology to open learning in the field up to more people. Participants were concerned about a “tick-box” e-learning approach of the type often used for induction and mandatory training. However others talked about strategies such as requiring line managers to verify that the student had put the learning into practice or the use of e-portfolios.

“We need to find people who can deliver really robust e-learning. You see good examples and you see dreadful ones. It should be engaging interactive and properly assessed.”

M(mobile)-learning using smart phones was suggested by several participants particularly as a tool to support parts of the workforce that might struggle to get access to computers at work, for example those in bands 1-4 roles. However there was an acknowledgement that m-learning needed to develop beyond didactic “talking heads” ie experts giving talks online, to something much more interactive.

Participants were passionate about partnership for building communities of practice around implementation and improvement and several participants had organized this for themselves and their peers in order to fill the gap.

“I find communities of learning are useful after fellowship finished I kept in touch with about 12. So the fellowship has extended beyond the fellowship year.”

There was a sense that it could feel quite lonely, particularly those who had been part of Fellowship schemes and specialist Masters’ programmes in the field. Participants had an ongoing thirst to learn

from colleagues and service users with experience of improvement and needed encouragement from a community of like-minded people.

“An alumni network across programmes I would really value that. It’s going to be lonely out there. We need to get used to doing this virtually then maybe we could connect up with the Harvard people and others internationally and really start to share experience and learn from each other.”

Participants valued collaboration and partnership to support learning, wider involvement and ongoing support around implementation and improvement work. Existing partnerships were valued and new partnerships were evolving.

Recommendations

The Masters Programme in Implementation/Improvement Science

A specific goal of this piece of work was to make recommendations to support the development of a Master’s programme in Implementation Science that will be delivered by King’s College London and Kingston and St George’s in partnership.

This work suggests the following recommendations:

1. There is evidence that the programme would be relevant to the following groups healthcare professionals (in practice and academia), service-users, biomedical and social researchers and managers from both provider and commissioning organisations. It will be important to recruit for diversity to support learning across disciplines but also to recruit for long-term commitment and potential to succeed.
2. The end goal of improved quality, safety, outcomes and population health draws all the target groups together and it will be important to consider how this is played into the way the programme is promoted.
3. It is likely to be helpful to involve all the target groups listed above in identifying a helpful title for the programme and to help develop selection criteria.
4. Consider how you facilitate access to practice learning opportunities for students who do not come from healthcare practice roles. Service provider organisations could for example sponsor students to undertake the programme on the understanding that the student would undertake a specific piece of improvement work aligned with the organisation’s strategic priorities.
5. Time to learn and funding are both limited and this creates a strong case for ensuring that all modules can stand-alone. It is likely to be helpful to show how modules relate to each other so that potential students can “pick and mix” more effectively.

6. Offer modules with a highly practical emphasis that could enable students from different fields of practice to tackle specific challenges in their workplace.
7. Embed visits to centres of excellence into the programme and consider filming interactions between your students and successful implementers and improvers to create materials that can be made available more widely via a web portal or MOOC.
8. Facilitate the development of Action Learning Sets for all students on the programme, bringing together people from diverse backgrounds to share their expertise and experience.
9. Consider developing a partnership with the Leadership Academy enabling your students to learn alongside and from people in executive roles as part of the leadership element of the course.
10. Include practical influencing skills, stakeholder engagement work and learning around building personal resilience in the leadership element of the course.
11. Offer innovative and inspiring teaching around measurement and evaluation embracing qualitative as well as quantitative approaches.
12. Consider developing a collaboration with the Clinical Human Factors Group to produce case studies for mutual benefit and an expert teaching resource.
13. Recruit a wide pool of potential mentors from different professions and with experience of different service environments.
14. Ensure that all potential mentors can demonstrate significant success with implementation/improvement in practice.
15. Incentivise mentors to ensure that they commit adequate time to the students.
16. Consider offering an optional internship period at the end of the Master's programme, allowing students extended time to learn from successful implementers/improvers in the field.
17. Facilitate a collaborative alumni network with other organisations offering courses and fellowships in the field.

In summary these recommendations suggest a strong emphasis on co-production involving all potential stakeholder groups in order to ensure that the programme meets diverse needs such that students who are recruited find themselves studying with people who can help challenge their thinking and broaden their horizons. The mapping exercise indicates that it is likely to be useful to work with the North West London CLAHRC to specifically develop approaches that enable service-user participation as geography might be expected to be an important driver for service users in relation to selecting a course.

The programme should be strongly rooted in practice and have the flexibility to be accessed as an integrated whole perhaps by students sponsored by an employer or even service user body in order

to deliver a strategic change priority, or as stand-alone modules to provide a “taste” of the field or to fill gaps in learning for those who have already accessed other programmes.

Leadership, measurement and human factors should be woven through the programme but opportunities for some students to deepen their learning in these areas should also be available.

Significant effort should be assigned to developing structures and mechanisms to make mentoring on the programme a success. The programme should support students to develop the skills to find a suitable mentor.

Wider educational initiatives

In terms of wider educational initiatives our findings would suggest that there is benefit in exploring the following:

1. A pilot programme with an apprenticeship provider to enhance the foundations for improvement work in the bands 1-4 workforce.
2. Developing bite size learning around implementation and improvement that could be delivered via a smart-phone “App.”
3. A pilot programme aimed at enhancing understanding of and commitment to improvement through induction.
4. A specific short course for commissioners aimed at shifting the emphasis from performance management to quality improvement.
5. Collaboration with the London Leadership Academy to enhance board development in relation to Implementation and Improvement Science.
6. A specific short course for non-clinical managers to enable them to effectively work between Boards and clinicians around improvement
7. Commissioning specific “action learning” to bring together service providers with a quality or safety challenge and researchers with a potential solution.
8. Consider funding additional fellowships in the field to build capacity and expertise.
9. Innovative approaches to disseminating information about learning opportunities relevant to the field of implementation and improvement.

In summary there is significant scope to enhance and expand education provision in the field of implementation and improvement locally. Our work suggests that there would be value in an initial focus on board development, the bands 1-4 workforce and commissioners.

Technology could be used to greater effect to make learning more readily accessible for all parts of the workforce and good partnerships will be needed to ensure the quality of initiatives in this area.

There is likely to be significant untapped potential in systematically driving partnerships between researchers with fresh ideas and service-providers or service-user bodies with strategic quality and safety priorities.

Finally it will be essential to ensure that staff and service users can more easily explore the learning opportunities available in the field of implementation and improvement and investment in communication tools including websites and portals will be important.

Potential next steps

A senior lecturer is being recruited to develop and lead the Masters programme. The recommendations relating to this programme should be taken forward by this individual. However there is an argument for specific pieces of further work as follows:

1. An exploration of options for service provider and possibly service-user body sponsorship of students aligned with delivery of change to support strategic quality and safety priorities.
2. Development of recommendations to support strong mentorship for students on the programme.

In addition there is interest elsewhere in the HIN and across London under the leadership of Caroline Alexander Regional Chief Nurse for London (NHS England) in:

1. Developing strategic approaches to linking improvement effort with strategic quality and safety priorities. This would link well with recommendation 7 under the wider education initiatives heading.
2. Supporting board development and leadership in relation to implementation and improvement. This links with recommendations 5 and 6 under the wider education initiatives heading.
3. Developing education for commissioners to ensure that commissioning effectively drives service improvement rather than simply performance management.

Taken together all of these areas of work would support an exploration around how we could create the right culture and environment for safety and improvement across the health and social care workforce in South London.

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What Matters Cubed

Using expertise from more than 20 years experience in healthcare and education What Matters Cubed seeks to improve and join up services funded by public money in order to enhance health and well-being for individuals and communities.

Faculty of Health Social Care and Education

The Faculty of Health, Social Care and Education is a unique partnership between Kingston University and St George's University of London. The Faculty has a strong reputation for partnership working with local health and social care service providers and offers undergraduate and postgraduate courses in nursing, midwifery, education, paramedic science, radiography, rehabilitation science and social work as well as a National Institute for Health Research funded MRes programme for health professionals and a range of continuing personal and professional development courses.