Quality Improvement

KING'S IMPROVEMENT SCIENCE

A Theory of Change of the quality improvement training programme at King's College Hospital

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This research was conducted by King’s Improvement Science (KIS) in collaboration with the Quality Improvement and Innovation (QI&I) team at King’s College Hospital (KCH). The project mapped out how, why and under what conditions the quality improvement (QI) training programme is expected to impact the capabilities of staff to undertake QI activities and ultimately improve care. Its aim was to provide insights to strengthen the Trust’s QI approach and training offer, but its findings would be of interest to any healthcare organisation delivering a QI training programme.

The KIS team included Katie Richards, Manuela Russo, Barbora Krausova, Kathryn Watson, Erin Letbe-Holder, Zoë Lelliott, Josephine Tapper, Rachel Olive, Kia-Chong Chua, Lucy Goulding, and Nick Sevdalis.

QI&I team collaborators included Lorraine Catt, Alister Notridge, Andrea Cortes, and John Lodge.

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Executive summary

Background

- The National Health Service (NHS) aims to provide high-quality care, which can be defined as care that is safe, clinically effective, efficient (productive), equitable, and focused on creating positive experiences for patients and staff.
- There are significant resource constraints in the NHS, but investment in quality improvement (QI) tools and approaches can lead to more efficient care as well as better outcomes, safety and patient and staff experience. For example, a QI project at King's College Hospital (KCH) reduced the amount of time staff spent looking for urgent care items while simultaneously avoiding approximately £11,500 in costs over 6 months.
- Training staff in QI approaches can enable them to make improvements within their immediate working environment and create an organisation that is dynamic and more responsive to emerging problems.
- The aim of this project was to map out how, why and under what conditions a QI training programme is expected to impact the capability of staff to undertake QI activities at KCH, and to use this understanding to strengthen the Trust's QI approach and training offer.

Method

- We developed a **Theory of Change (ToC)** to address the project aims. A ToC is a diagram that shows how, why and under what conditions the training programme is expected to lead to changes in staff capability, and ultimately improve the quality of care.
- We analysed information gathered during workshops and interviews with QI&I team members, hospital staff, and patient and public contributors, in order to create the ToC. A total of 27 people took part in the project.
- We have tested and iterated the emerging ToC model extensively to ensure that it comprehensively captures the views of the study participants and stakeholders.

The Theory of Change

Below is a summary of our visual map (the Theory of Change) of how the QI training programme is expected to impact staff capability and ultimately improve care.

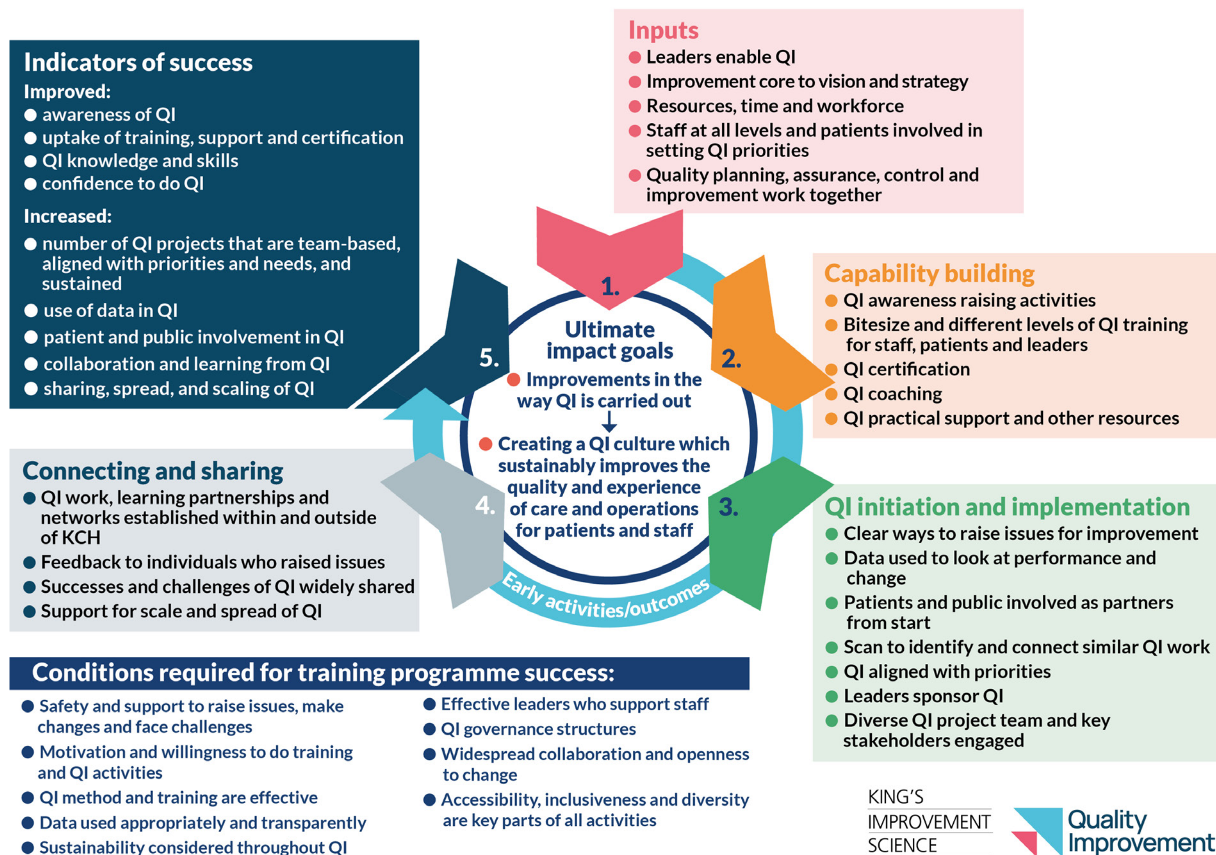

Figure 1. Visual road map (the Theory of Change) of how the quality improvement (QI) training programme is expected to impact staff capability and ultimately improve care.
KCH = King's College Hospital; QI = quality improvement.

The **ultimate impacts goals** (at the centre of the diagram) of the QI training programme are:

1. improvements in the way that QI is carried out (i.e., better QI support and infrastructure);

2. creating a QI culture, which sustainably improves the quality and experience of care and the day-to-day running (operations) of the hospital for patients and staff.

The **indicators of success** (intermediate outcomes) towards these ultimate goals are:

1. improved awareness of QI, uptake of the training/support and improved knowledge, skills and confidence of staff to undertake QI activities;

2. increased number of QI projects that are team-based, aligned with priorities and needs, and sustained;

3. increased use of data and patient and public involvement in QI;

4. increased sharing, collaborating, learning, spreading, and scaling of QI within KCH and beyond.

The four categories of **early activities and outcomes** needed to impact the indicators of success and ultimate goals are:

1. Inputs: the essential "ingredients" that need to be in place to allow the programme to happen – such as senior leaders actively supporting and enabling QI, and staff time being released for the training and QI activities.

2. Capability Building: the core activities of the training programme, which includes broader activities such as awareness raising of QI, as well as different levels of QI training and practical support for staff and patients.

3. QI Initiation and Implementation: this includes key activities required for effective improvement projects, such as clear mechanisms for staff, patients and the public to raise ideas for improvement, and the use of data to monitor performance and drive change.

4. Connecting and Sharing: this includes key activities for developing collaborative QI networks and sharing and spreading QI learning and initiatives.

We also identified nine **key assumptions and contextual factors** that underly and influence the success of the QI training programme. These are: (1) staff and patients feeling safe and supported to raise issues, make changes and face challenges; (2) the motivation and willingness to participate in training and QI; (3) the effectiveness of the QI methodology and training; (4) data being used appropriately and transparently; (5) sustainability being considered at the start and throughout QI work; (6) effective leaders that support staff; (7) QI governance structures in place; (8) widespread collaboration and an openness to change; and (9) accessibility, inclusiveness and diversity are a key part of the training, patient and public involvement, and QI (i.e., all activities on the ToC).

Findings and recommendations from the study

The current QI training provided at KCH was very well received by study participants. However, the existence of effective QI training was seen as essential but not sufficient in isolation to build a culture of QI and sustainably improve care. Hence, the recommendations that we are making as a result of this study are also aimed at the wider embedding of QI across the organisation, including senior leadership support, awareness raising of QI, and demonstrating that the organisation recognises and values improvement activities. While the primary aim of this study was to provide insights to strengthen KCH's QI training approach, the findings and recommendations would be of interest to any healthcare organisation delivering a QI training programme.

Leadership and organisational approach

- Leaders should have a thorough **understanding of QI** and be **actively** promoting, supporting and enabling QI activities throughout the organisation.
- There should be stronger connections between **quality improvement**, **planning/ redesign, assurance and control** such that they form a comprehensive approach to maintaining and improving quality.
- A **holistic evaluation framework** drawing on pre-existing data as much as possible is required to evaluate and monitor the progress of the QI training programme. Ideally, this should enable measurement / monitoring of the early and intermediate outcomes identified on the ToC.

Diverse engagement and involvement

- Staff at all levels require support to identify **protected time** to engage in the training, QI and patient and public involvement, recognising that this investment can lead to higher quality, more efficient services and cost savings.
- Staff at all levels, patients, and the public from a range of diverse backgrounds need to be **listened to, involved in, and actively supported and empowered to do QI**. Establishing a **diverse project team and involving all relevant stakeholders** as early as possible was seen as particularly important by study participants.
- Active efforts are required to create an environment where **all staff, patients, and the public feel safe to raise issues and make changes.**
- New activities are required to ensure that patients and carers are **meaningfully involved with QI from the very start and kept informed about progress and the changes made as a result of their involvement**.

Communication and collaboration

- All communications around QI and the training should use **simple and plain language**.
- Activities are required to **increase staff and patient awareness of QI, its value, and how to be involved**.
- Leaders and staff at all levels should look **within and outside** the hospital to **understand what is already happening and build collaborative improvement partnerships, groups, and networks**.

QI training and support

- The QI training should have **different levels** (ranging from induction to advanced) and be as **accessible** as possible for all staff and patients (e.g., bitesize or "on-the-go" options).
- **A broader set of QI practical support and resources** (in addition to training) are needed to support and facilitate QI work (e.g., accessible QI coaching, a QI platform).
- Creating l**ong-term and sustainable improvements** in the quality and experience of care should be a central part and goal of the QI training programme and support. However, creating sustained changes and improvements in the NHS can be challenging and requires sustained investment of effort and resources.
- **Accessible data training, support and infrastructure** are needed to allow staff to do data-driven QI.