Quality Management System: A 90-day innovation cycle

Final report

Contents

Introduction

> *"The old way: Inspect bad quality out. The new way: build good quality in."*
>
> W Edwards Deming

Healthcare Improvement Scotland (HIS) adopted the Institute for Healthcare Improvement's '90-day innovation process' to explore **what needs to be in place to ensure an effective approach to quality management across health and social care in Scotland.** Our work builds on the quality management theory of Juran and Deming.

Aim

To be able, by 1 March 2018, to describe the **key components** and **functions** of a national **quality management system** that is tailored and relevant to HIS and its **key national partners** and, if delivered, would enable us to effectively support the **delivery of high quality care** in Scotland.

Our intention was to define a common framework for quality management across health and social care that could be applied at a national, NHS board and Integration Joint Board level, so that by the end of the cycle, the practical application of the quality management system could be tested in different contexts.

More information about the aims and approach to this work can be found in the project charter (available on request from HIS).

Approach

The findings in this report have been influenced by the literature on quality management; the findings from 22 expert interviews; and discussions with a wide range of stakeholders across Scotland through a mixture of focus groups and individual meetings. The core team met weekly, revising their work iteratively as they learned. The work was supported by an extended team of critical friends who participated in fortnightly calls to provide guidance and advice. The **Institute for Healthcare Improvement** (IHI) worked with us throughout and brought their experience and expertise to the extended team calls and the process as a whole. The support from IHI was funded by the Scottish Government.

In addition, a "report out" group was created for key external stakeholders who were unable to participate in the weekly or fortnightly team calls. This group met on a monthly basis at the end of each phase and provided valuable input into the work as it progressed. See Appendix 2 for membership of each of these groups.

This document is a summary of our learning. It is supported by two literature reviews and a thematic report summarising the findings from our expert interviews. The methodology for this work is outlined in Appendix 1. Table 1 is a brief summary of activities and outputs at each stage.

Table 1: Summary of activity

	Activity	Output
Pre-cycle	Formalise the aim and intent of the work. Create a project team, develop project plan and schedule meetings.	• Quality Management System: A 90-day innovation cycle - Project charter
Phase 1: Scan	Learn what's out there. Look to other industries and understand best practice through a combination of literature reviews and semi-structured telephone interviews.	• Quality Management System: A 90-day innovation cycle - First literature review • Quality Management System: A 90-day innovation cycle - Second literature review • Quality Management System: A 90-day innovation cycle - Expert interview themes
Phase 2: Focus	Formalise our own theory, *the quality management system framework*, and test if it could work for us. Hold focus groups to test and improve our theory with a variety of stakeholders.	• High-level quality management system framework - draft • Detailed quality management system framework - draft • Quality Management System: A 90-day innovation cycle - Focus groups
Phase 3: Summarise	Summarise learning. Refine theory based on feedback and develop materials for next steps: practical application and testing.	• Quality Management System: A 90-day innovation cycle - Final report • Quality Management System: A 90-day innovation cycle - Quality management activities at Board level

Supporting documents can be found on our website:
www.healthcareimprovementscotland.org/previous_resources/policy_and_strategy/quality_management_system.aspx

Summary of learning

What is a quality management system?

Through this 90-day process we have developed and tested the following definition:

"A co-ordinated and consistent approach to managing the quality of what we do across our health and care system, with the ultimate aim of delivering better population health and wellbeing, better care experience, better value and better staff experience."

Ideally, a consistent approach to quality management should operate at every level in a system, from national, through NHS boards and Integration Joint Boards to individual service delivery teams.

What are the benefits and risks attached to developing a national framework for quality management across health and social care?

Throughout the process significant support was expressed for developing a common understanding about what needs to be in place at different levels to ensure effective management of the quality of care. The need for a common language around quality management was identified as an issue without this, individuals and organisations can end up using the same word to mean different things, This could result in disagreement about an issue, when in practice there is agreement or vice versa. Both present risks to the effective management of the quality of care.

It was also recognised that health and social care services are facing considerable financial and workforce challenges. These pressures increase the risk of poor quality care, this in turn increases the need for a consistent approach to the management of quality, built on evidence and international best practice.

The 90-day process highlighted a commonly held belief that our current approach to the management of quality in Scotland is out of balance. There is a belief that quality control is overly focused on external scrutiny and that there is a lack of effective quality planning. A common framework and language would help every part of the system to consider whether its approach is in balance and enable shared learning across the country.

Although the benefits of a common framework were understood, concerns were expressed about the potential for a national framework for quality management to be inappropriately imposed on local systems. This required reiteration that this is a high level framework that needs to be adapted and embedded into local contexts and approaches.

How would a quality management system support implementation of existing national strategies for improving the quality of health and social care?

To help answer this question we drew a framework to illustrate the components of a quality management system in health and social care and how these would interrelate. The current draft of the framework has two images, a high level diagram which gives the pictorial overview (Image 1) and a more detailed diagram which indicates what activity might look like within each key area (Image 2). These diagrams can also be found on our website: www.healthcareimprovementscotland.org

Both diagrams highlight that quality management is a dynamic system with the components feeding into each other.

Drafts of the framework were tested internally with HIS staff and externally amongst a selection of stakeholders. The vast majority of people attending the sessions agreed that it was a useful overall

model to guide thinking in health and social care. There were concerns raised by some social care stakeholders that the approach, whilst valid for healthcare, may not be applicable in social care due to its less centralised model of control. Others from social care, however, thought the framework was equally applicable.

Issues around language came up as a recurring theme, with a view by some social care stakeholders that the current language used is more closely aligned with health. The emphasis within the framework on the importance of relationships and involving people who use services, their families and wider communities in every aspect of quality management was welcomed, as was the focus within quality planning on taking the time to understand the needs and assets of those who use services and their wider communities.

The framework was developed iteratively, with stakeholder feedback at each stage. Our intention is that this quality management system framework will be further refined when tested in practice.

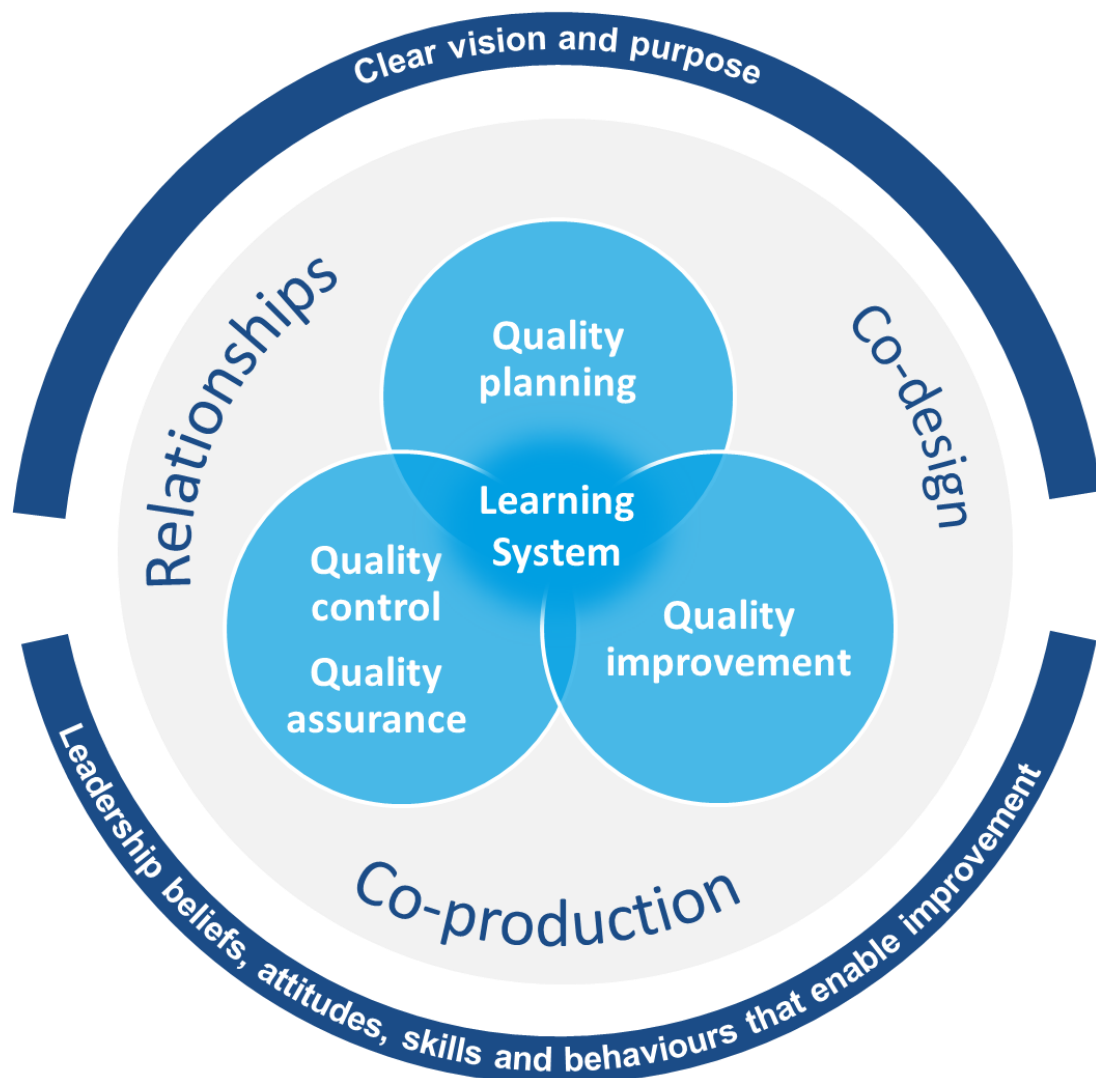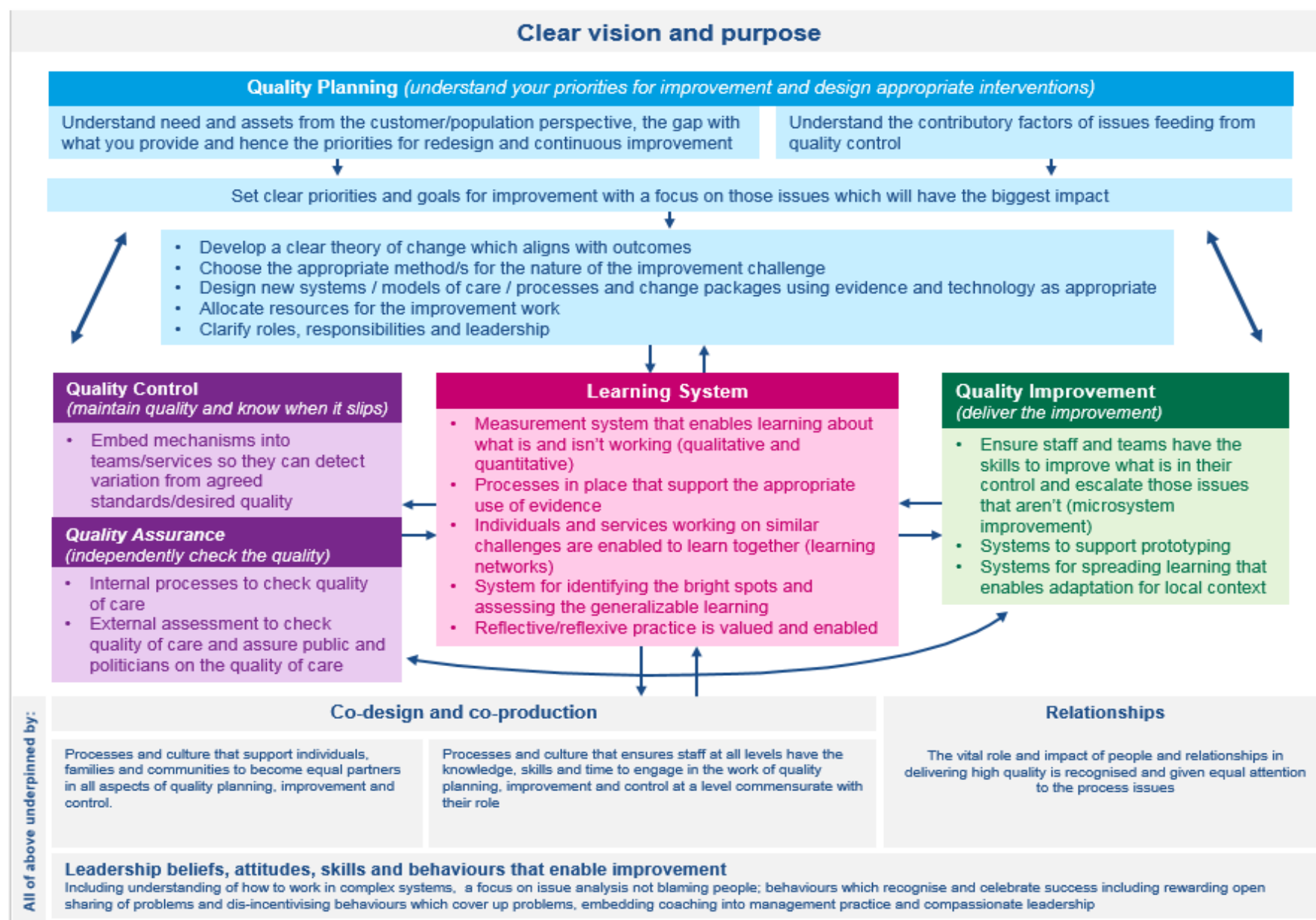**Image 1:** High-level quality management system framework (draft)

Image 2: Detailed quality management system framework (draft)

Clear vision and purpose

Quality Planning (understand your priorities for improvement and design appropriate interventions)

Understand need and assets from the customer/population perspective, the gap with what you provide and hence the priorities for redesign and continuous improvement

Understand the contributory factors of issues feeding from quality control

Set clear priorities and goals for improvement with a focus on those issues which will have the biggest impact

- Develop a clear theory of change which aligns with outcomes
- Choose the appropriate method/s for the nature of the improvement challenge
- Design new systems / models of care / processes and change packages using evidence and technology as appropriate
- Allocate resources for the improvement work
- Clarify roles, responsibilities and leadership

Quality Control
(maintain quality and know when it slips)

- Embed mechanisms into teams/services so they can detect variation from agreed standards/desired quality

Quality Assurance
(independently check the quality)

- Internal processes to check quality of care
- External assessment to check quality of care and assure public and politicians on the quality of care

Learning System

- Measurement system that enables learning about what is and isn't working (qualitative and quantitative)
- Processes in place that support the appropriate use of evidence
- Individuals and services working on similar challenges are enabled to learn together (learning networks)
- System for identifying the bright spots and assessing the generalizable learning
- Reflective/reflexive practice is valued and enabled

Quality Improvement
(deliver the improvement)

- Ensure staff and teams have the skills to improve what is in their control and escalate those issues that aren't (microsystem improvement)
- Systems to support prototyping
- Systems for spreading learning that enables adaptation for local context

All of above underpinned by:

Co-design and co-production

Processes and culture that support individuals, families and communities to become equal partners in all aspects of quality planning, improvement and control.

Processes and culture that ensures staff at all levels have the knowledge, skills and time to engage in the work of quality planning, improvement and control at a level commensurate with their role

Relationships

The vital role and impact of people and relationships in delivering high quality is recognised and given equal attention to the process issues

Leadership beliefs, attitudes, skills and behaviours that enable improvement
Including understanding of how to work in complex systems, a focus on issue analysis not blaming people; behaviours which recognise and celebrate success including rewarding open sharing of problems and dis-incentivising behaviours which cover up problems, embedding coaching into management practice and compassionate leadership

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> *"Tools are designed to look easy, but they are not easy to use. Leaders underestimate the energy needed to make improvement."*
>
> Interviewee 15

This framework takes the traditional concepts of quality control, quality planning and quality improvement and, on the basis of our learning from IHI, embeds the concept of a learning system at the centre. A consistent message throughout the focus groups was the importance of - quality management processes being embedded within a context that recognises the vital role that people and relationships play in delivering high quality care. A key aspect of this is involving individuals, families and communities in all aspects of quality management.

We also heard consistently that leadership beliefs, attitudes, skills and behaviours that enable improvement are the foundations that underpin effective quality management. Finally, we embedded the learning from IHI that was reinforced by our literature review and interviews, that all of this has to sit beneath a clear vision and purpose.

Initial testing has led us to conclude that the high level document is useful as an initial introduction to the concepts, with the more detailed document supporting a more in-depth discussion around whether a system has an effective approach to the management of quality.

A key question throughout this process has been whether this framework would help organisations and teams to improve their approach to the management of quality. A key benefit appears to be the potential for "running a problem through it". Our stakeholders valued using it to gauge the complexity of a problem,

> *"Allow teams to do it for themselves at a local level…all building on the same approach."*
>
> Interviewee 11

illustrate the balance of current activities and discuss prioritisation. Furthermore, our initial testing indicates that the framework could be valuable for developing an approach to managing quality at various organisational levels, from the national "macro" system down to the team level "micro" system.

What are the core components of an effective approach to quality management across health and social care?

The framework reflects the themes which were raised repeatedly during our expert interviews and includes the following.

Clear and consistent language

We heard consistently from our interviews and focus groups about the importance of language and how this can be a barrier to people engaging with the concepts of quality and organisational improvement. Management language is considered inaccessible by many. Although the principles of quality management are the same across all industries, there are differences in the interpretation of its meaning. For many people, quality management is synonymous with quality control. It is worth noting that when we refer to improvement we mean it to incorporate both continuous quality improvement and redesign/innovation work.

We have used an iterative approach to refine and simplify our language where possible so that it reflects our thinking clearly and concisely. However, we recognise that there are still challenges with the language and this is something we will explore further through the next stages of testing.

Importance of understanding customer need

The literature indicates that the factor found to contribute most to improved performance was a customer focus. Similarly, all interviewees emphasised the importance of knowing what the "customer", whoever they may be, wants. Taking the time to understand and plan for customer needs at a strategic level is essential for good quality management. Without this, service delivery could be excellent but irrelevant. In the context of quality management, the customer is the end service user, so for clinical and care delivery services it is the people using the service. In some cases, it may also include their families and wider communities.

The focus on understanding need is important and relates back to the findings of the Christie Commission. There are many examples across our health and social care system of meeting the presenting problem but not addressing the underlying need. This can result in growth of what Christie refers to as failure demand. A key aspect of quality planning is understanding the population's needs and assets, designing services which meet those needs first time, and making the best use of the assets that exist in our wider communities.

Customer-centred quality planning requires consistency in overall purpose and vision, but flexibility in terms of delivery pathways. A clear vision and aims should be set out from the start.

A holistic approach to quality management

The majority of experts we spoke to considered Juran's "three domains" to be most relevant. A lot of work has been done across Scotland to increase understanding and skills in quality improvement; what is now required is an understanding that quality improvement is only one element of quality management. Quality control, quality improvement and quality planning are required at every level of an organisation to enable the ongoing delivery of high quality care. In health and social care, this must be considered alongside people, culture and an environment for systematic learning.

> *"We make fantastic improvement and don't retain the gains. We need to think about everything that supports a system, leadership, culture etc."*
>
> Interviewee 10

How data are used

Effective quality management requires measures that help us to understand what is and isn't working and where we might intervene to make improvements. This should include quantitative and qualitative information. One interviewee highlighted that their organisation keeps targets at Board level to mitigate the risk of staff working to targets, at the expense of making real and sustainable improvements based on customer experience and needs. The emphasis should be on staff managing quality, not managing targets.

Relational approach at heart and centre of everything

The importance of relationships, and the people contributing to the process, cannot be underestimated. The calibre of the workforce is central to the ability to deliver and continuously improve the quality of care. It is important to celebrate staff endeavour and for management to demonstrate their appreciation. Staff should be recruited and retained on the basis of commitment to quality work, and time to pursue improvements in delivery should be built in to roles. Helping to illustrate why everyone in an organisation has a responsibility for delivering quality is essential for an effective quality management system. Everyone across the organisation needs to understand what delivering value and quality means in their role.

> *"At the heart of quality is learning from others' mistakes. Cut those out and you can deliver a dramatic improvement in quality."*
>
> Interviewee 3

What mechanisms need to be in place to deliver these components at a national level to ensure they work together in practice as an integrated approach to quality management?

Learning environment

Our interviewees linked success in quality management from a health and care perspective to the level of maturity around quality thinking. The use of training, education, recruitment and induction to reinforce values and activities that enable a quality management system is essential.

> *"Learning culture goes hand in hand with a strong approach to quality management."*
>
> Interviewee 5

Much of quality management theory originates from a manufacturing context, where there is a high level of determinism and predictability to the work. Translating the theory to service contexts requires a much greater focus on the systematic recording of relevant data, knowledge synthesis and, most importantly, the involvement of people.

Teaching of quality management and reinforcing relevant behaviours should be formalised at a strategic level, this insures consistency and purpose irrespective of changing environments or staff turnover.

Culture and flattened hierarchies

Empowerment and collaboration are central to a quality service. Staff must be able to make decisions that enable them to deliver excellent person-centred, responsive work. The majority of quality control and quality improvement should happen at the micro system level (service delivery teams).

> *"With a distributed approach to quality management we can relax the top down approach and move to intrinsic motivation."*
>
> Interviewee 7

Tailoring services to the individual does not contradict the concept of standardisation. Donald Berwick identifies that standardising routine processes creates the time and capacity for clinicians to focus on the uniqueness of each patient they treat.

Quality management must be considered at all levels of the organisation. Board members and executives need to understand the key concepts around quality management and focus on creating the conditions for effective quality management across the organisation.

Reinforcing quality management values and behaviours through practical measures such as routine peer review of work is important. When carried out in the right way peer review is a positive experience which provides opportunities to learn from colleagues and reflect on personal practice.

How does a quality management system help implement, scale up and/or spread learning and sustain the priority focus areas of the Scottish health and social care system?

The central component of our quality management system is a learning system. A reliable learning system will create opportunities for sharing knowledge and generate processes which make sharing constructive and timely. The detailed design and construct of the learning system will depend on the topic it is supporting.

Across Scotland we already have a number of learning systems relating to particular priority improvement challenges, built largely around current national improvement programmes. This 90-day process has highlighted opportunities to further develop and strengthen those learning systems and it is a proposed priority area for next step action.

The draft framework has illustrated priority areas which we can address to increase its effectiveness. The literature review and interviews carried out in this cycle have highlighted the importance of leadership and culture for the delivery of high quality care and services. Our draft quality management system framework is underpinned by "leadership beliefs, attitudes, skills and behaviours that enable improvement". Using a quality management system in a deliberate way helps us to define   the culture required for high quality. For instance, following a national masterclass for NHS Board members, we now have a practical list of activities and behaviours which should consistently happen at Board level to enable an organisation to prioritise quality management.

Quality Management Activities at Board Level can be found on our website: www.healthcareimprovementscotland.org/previous_resources/policy_and_strategy/quality_management_system.aspx

Testing the quality management system

Our research has indicated that where a quality management system can falter is when trying to shift from the theory to practice. The literature review confirmed that there is no standard approach to implementation. Success at implementation stage is increased if leadership is supportive of the approach to quality management and all managers across the organisation are committed to it. Implementation must also consider and address the "gap of implementation capability"; this would include support for developing skills in effective communication, behavioural change and readiness to learn (Nasim et al, 2014).

Our proposed testing phase will enable us to check if and where there are gaps in the framework when applying it in practice and how it might be applied in practice. We recognise that a number of NHS boards already have an organisational approach to quality management. From our initial discussions we envisage that, in these NHS boards, the framework will be used to understand whether part(s) of their existing quality management system need to be strengthened. We also think it will be important for any system to customise this generic framework.

A limited amount of testing was carried out in the third phase of the 90-day cycle. The aim of this work was to "populate" the framework with real examples. In doing so, it became apparent that the framework should be considered to represent a dynamic system. An organisation's activity across the quality management system, and the extent of the activity in any of the individual domains will depend on local contextual issues. For instance, a service that has been designed to meet customer need and is delivering high quality care will have some activity around quality control and continuous quality improvement. A service that has significant quality problems will need to focus time in the quality planning domain before then moving on to focus capacity on implementing improvements.

How does the EFQM Excellence Model interface with a quality management system?

The EFQM (European Foundation for Quality Management) *Excellence Model* is a continuous improvement tool, providing an organisation with a systematic tool for self-evaluation. The ability to self-evaluate was identified as an important aspect of a quality management system in our expert interviews. Our interviews and focus groups highlighted a belief that health organisations in Scotland are weak at self-evaluation, whereas social care services use self-evaluation systematically and effectively. They also highlighted a belief that health organisations are better at using quantitative data as part of an overall approach to quality management. Effective self-evaluation requires the use of both quantitative and qualitative information and hence the integration of health and social care may provide an opportunity to mutually learn from each other's strengths in this area.

Combining a strategic quality management system with a model like the EFQM *Excellence Model* is not unusual. The *Excellence Model* is a valuable check for organisations to understand how their organisation fits into a defined system of quality indicators and generates feedback which is genuinely collaborative and inclusive of wide ranging viewpoints. We anticipate the valuable insight offered to organisations from using the EFQM *Excellence Model* process will inform the learning system and indicate areas for increased focus: be they in quality planning, quality control, quality improvement or in the learning system itself.

As with our findings, the *Excellence Model* can suffer from people not engaging with its language. For this model to inform our quality management system in a meaningful and reliable way, staff at every level should understand and contribute to the evidence informing a review. The *Excellence Model* can support the operational element of a quality management system, offering clarity around what high quality is and a structured approach to measuring achievements.

HIS has developed a quality framework that is based on the EFQM *Excellence Model*. It is presented in language that is familiar to the health sector and that aligns with similar models used by other agencies, such as the Care Inspectorate and Education Scotland. This approach can be developed, and the language of the quality framework adapted further, so it makes sense for people working in particular health services or for use within our own organisation.

The *Quality Framework Draft Edition - Evaluating and Improving Healthcare* can be found on our website:
www.healthcareimprovementscotland.org/our_work/governance_and_assurance/quality_of_care_approach/quality_framework.aspx

How do Scotland's Health and Social Care Standards interface with a quality management system?

Scotland's new Health and Social Care Standards were published by the Scottish Government in June 2017. The new Health and Social Care Standards will be used from April 2018 as a guide to achieving high quality care. An effective quality management system will enable teams and organisations to deliver care that meets these standards. The Health and Social Care Standards set out what we should expect when using health, social care or social work services in Scotland. They seek to provide better outcomes for everyone and to ensure that individuals are treated with respect and dignity and that the basic human rights we are all entitled to are upheld. The new standards are relevant across all health and social care provision. They are for use in health and social care, as well as in early learning and childcare, children's services, social work and community justice.

There are five standards, which explain what achieving the outcome looks like in practice:

1: I experience high quality care and support that is right for me.
2: I am fully involved in all decisions about my care and support.
3: I have confidence in the people who support and care for me.
4: I have confidence in the organisation providing my care and support.
5: I experience a high quality environment if the organisation provides the premises.

The Standards are underpinned by five principles: dignity and respect, compassion, be included, responsive care, and support and wellbeing.

What are the key opportunities for improving how we work together across HIS to deliver an effective approach to quality management at a national level?

During the HIS staff focus groups the following key themes emerged.

- There are opportunities to increase the impact of the organisation by applying the quality management system framework to help identify the optimal combination of functions that HIS should deploy in any given context; recognising that often the appropriate response requires a combination of the different expertise that sits in different parts of the organisation.

- Staff saw the value of strengthening cross-organisational working and saw the potential in pooling the skills of staff from across the organisation to address specific issues in a more holistic way. It was felt that this would also help confirm the organisational aims and ensure all staff are working to the same goals.

- There was a call for greater sharing of information and learning across the organisation, as well as externally. In order to achieve this, there is a need for improved information sharing and a more effective approach to use of data. The role of better IT systems including a unified customer relations database was identified as a potential enabler.

- There was a sense that strengthening the quality planning processes could assist in focusing the organisation's energy and resources on the key areas of work where it can have the greatest impact. Further, there is a need for a greater focus on measuring the impact of the work. The existing work to ensure every programme is underpinned by a clear logic model which includes measures of short, medium and longer term impact is the right direction of travel. As part of this we need to routinely include assessments of the financial benefits accrued from our work.

- We should work closely with other national partners in a joined-up approach to engaging stakeholders in this work.

- HIS has its own internal approach to managing the quality of its services. Applying this framework internally would help to strengthen its quality management approach, leading to better understanding of customer need, implementation of changes to better meet those needs and continuous monitoring of impact against agreed outcomes.

What are our unanswered questions from this cycle?

What are the key opportunities for improving how we work together across national organisations to deliver an effective approach to quality management at a national level?

As we learned more about quality management systems, it became increasingly apparent that the answer to this question needs to be co-designed with our national counterparts. It requires considerable input and reflection from our "customers" - the territorial NHS boards and Health and Social Care Partnerships. We did not have the capacity to progress this as part of this cycle and therefore recommend this is a priority for next steps.

Additional questions to consider

People may wish to explore the following areas:

- What mechanisms need to be in place to deliver the identified core components in practice at a regional and local level in a way that ensures that we work together in practice as an integrated approach to quality management?

- How could we effectively govern a national approach to quality management?

- What are the key activities and behaviours that need to be in place for the microsystem to undertake effective quality management?

Conclusion

Through this cycle we have considered the potential merits of quality management systems and explored ways to make management theory applicable to health and social care in Scotland. Our conclusion is that there is much that we can learn from traditional approaches. By widening the components to include concepts, such as learning, culture and relationships, we will be better equipped to deliver our strategy *Making Care Better*, and enabling high-quality, person-centred care across Scotland.

Our initial testing indicates that there is an appetite for a quality management approach among our key stakeholders and that the timing of this work means there is a good understanding of what a structured quality management system can achieve. We remain mindful that the language we use and the way this work is shared with our colleagues, both internally and externally, will be vital in terms of its potential success and ultimately for the likelihood that this work makes an impact.

Next steps

Practical testing

The focus of this 90-day cycle was to develop a framework that could then be taken forward for practical testing. We anticipate that strenuous testing will demonstrate gaps in our knowledge and provide an opportunity to refine and improve our draft quality management system under a variety of conditions. We propose taking this work forward as follows:

- within HIS through three initial priority areas of work:

  - strengthening our cross-organisational approach to supporting **national learning systems**

  - undertaking a self-assessment against the quality management activities for Board members that were produced as part of this work, and

  - developing our approach to **quality management at the microsystem** level within the organisation.

- across NHS boards and Health and Social Care Partnerships by:

  - setting up a programme of work to support implementation of quality management at the microsystem level in NHS boards and Integration Authorities. A key message from the work has been the importance of embedding systems for quality planning, improvement and control within our service delivery teams. Over the last year, NHS Highland has been working with IHI to develop an approach to quality management at the microsystem level that integrates quality and cost data. In addition to enabling higher quality care, the prototyping work is delivering better value care through both cash releasing improvements and productivity improvements. A proposal to spread this work to interested NHS boards has been submitted through the national board collaboration process and, if funded, this should be positioned as part of an overall approach to embedding a quality management approach in practice. As part of this work, we will look to identify a couple of integrated health and social care teams willing to prototype application in their context.

  - working with NHS Board Quality Improvement Executive Leads to co-design any further next steps in terms of supporting application and adaptation within NHS boards.

Dissemination and publication

This work builds on traditional quality management theory and addresses the changes required when relating it to a health and social care context. We have been advised by IHI that there is considerable value in sharing our learning to date with stakeholders across the wider international QI community. As well as sharing this report, we recommend:

- the dissemination and publication of two literature reviews and the thematic analysis of the 90-day cycle interview transcripts

- a joint paper with IHI for publication, and

- proposed conference presentations at the *IHI National Forum*, December 2018 and the *International Forum on Quality & Safety in Healthcare*, March 2019.

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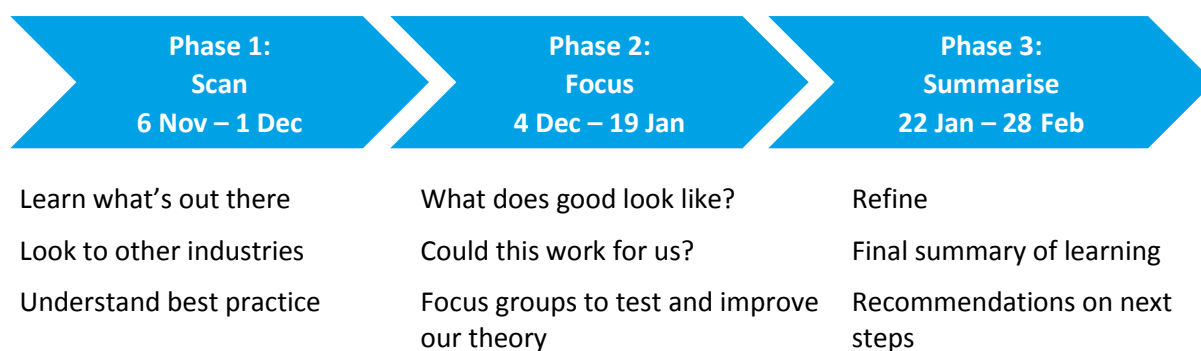*http://qualitysafety.bmj.com/content/early/2013/08/28/bmjqs-2013-001947*

Appendix 1

Our approach

- Develop a conceptual framework for quality management across health and social care that could be applied at a national, HIS, NHS board and Integration Joint Board level.

- Use it to think about priorities for improving how national organisations work together to better support the health and social care system to reliably deliver high quality care.

- Operationalise it at a HIS level identifying the key priorities for improving how we work together across the organisation.

> *"90-Day Cycles are a disciplined and structured form of inquiry designed to produce and test knowledge syntheses, prototyped processes, or products in support of improvement work."*
>
> (Carnegie Foundation 90-day cycle handbook, Sandra Park and Sola Takahashi, 2013)

Phase 1: Scan 6 Nov – 1 Dec	Phase 2: Focus 4 Dec – 19 Jan	Phase 3: Summarise 22 Jan – 28 Feb
Learn what's out there	What does good look like?	Refine
Look to other industries	Could this work for us?	Final summary of learning
Understand best practice	Focus groups to test and improve our theory	Recommendations on next steps

Literature review

A literature review was carried out as part of a 90-day cycle with the aim of better understanding current theories of how quality management should be effectively delivered and implemented. The 90-day literature review intends to leverage knowledge from the literature with increasing focus and depth through the phases of the cycle.

Methodology

The literature review was conducted using a purposeful and iterative approach based on IHI's '90-day innovation process'[1]. Searches for English language peer reviewed and grey literature were carried out between 1 and 28 November 2017, using a combination of electronic (databases included Cochrane Library, Emerald, Medline and Social Care Online) and snowball searching. Results screening involved consideration of 147 abstracts, with 27 publications subsequently included for narrative review. Full details of the search strategy are available on request.

1. Institute for Healthcare Improvement. 90-day innovation process. Available from: http://www.ihi.org/about/Documents/IHI%20Innovation%20Summary.pdf [Accessed 1 November 2017].

Key themes

The first literature review considers the existing quality management frameworks being used across a variety of sectors and explores how each of them operate. The frameworks are compared and any

gaps in understanding identified to try and examine what can be learned from these frameworks about an effective approach to strategic quality management in health and social care.

The second literature review examines the theories of Juran and Deming to understand how these principles inform how to achieve an effective quality management approach and explores what can be learned from high performance management systems in general.

Both literature reviews can be found on our website:
www.healthcareimprovementscotland.org/previous_resources/policy_and_strategy/quality_manage ment_system.aspx

Interviews

Telephone interviews were conducted by a core project team according to the 90-day cycle approach that utilises snowball sampling to identify subject experts to consult across a range of fields and a semi-structured interview protocol. The interviews lasted approximately an hour. Detailed notes were taken to form transcripts for review by the wider project team and which were subsequently analysed by a health services researcher using Nvivo software. The interview transcripts were anonymised.

Analysis

Thematic analysis was chosen because it is a method of analysis that is theoretically flexible and focuses on the identification of broad themes in interview transcripts relating to the experiences of those interviewed (Braun and Clarke, 2013). The analysis followed Braun and Clarke's (2006) six-phase approach which allows identification of prevalent patterns in interview transcripts that explain what is common and also different in the participant's experiences around central concepts. The transcripts were imported into Nvivo software for analysis, with an inductive line-by-line coding approach being used. Although prevalence of patterns across a dataset does form part of how themes were identified, thematic analysis does not seek to quantify the data.

An in-depth thematic analysis introduction and methodology can be found on our website:
www.healthcareimprovementscotland.org/previous_resources/policy_and_strategy/quality_manage ment_system.aspx

Focus groups

During phase 2, a series of focus groups were held with external stakeholders and internally with HIS staff. The focus groups were interactive two-hour sessions in which the participants viewed the draft framework and tested its use in a practical way. Further to this, a number of awareness sessions were held with stakeholders to generate discussion and gather feedback. Details of the focus groups and awareness sessions can be found in Appendix 3.

During the external focus groups, participants chose a current quality challenge/problem and ran this through the framework. The framework was well received by external stakeholders, with feedback emphasising that it helped to highlight current weaknesses and the key opportunities for doing some things differently.

In HIS, the staff used the framework to categorise the work they currently do, demonstrating that all parts of the organisation currently have involvement in more than one domain and highlighting the need for HIS to work cross-organisationally. These focus groups particularly demonstrated the need for HIS to be able to implement this framework internally.

Outputs and comments from the focus groups are available on request from HIS.

Following the focus groups, the core team have made the following changes to the draft framework based on the feedback received:

- simplified the presentation and amended the language further

- included greater focus on people and relationships, and

- moved the underpinning concepts from the left of the diagram to a more central position.

Appendix 2

Membership of 90-day cycle groups

Core team		
Name	**Job title**	**Organisation**
Ruth Glassborow	Director of Improvement Support and ihub	HIS
Brian Robson	Medical Director	HIS
Sara Twaddle	Director of Evidence	HIS
Alastair Delaney	Director of Assurance	HIS
Mark Aggleton	Head of Service Review	HIS
Ann Gow	NMAPH Director	HIS
John Harden	Clinical Lead, Safety and Quality	Scottish Government
Sarah Harley	Health Service Researcher	HIS
Marie-Claire Stallard	Improvement Advisor	HIS
Gemma Stewart	Project Officer	HIS
Mhairi Mackay	Admin Officer	HIS

Extended group (plus core team)		
Name	**Job title**	**Organisation**
Robbie Pearson	Chief Executive	HIS
Simon Watson	Chief Quality Officer	Lothian
Andy Crawford	Head of Clinical Governance	GG&C
Derek Feeley	CEO	IHI
Kedar Mate	Chief Innovation and Education Officer	IHI
Pierre Barker	Chief Global Partnerships and Programs Officer	IHI
Yael Gill	Executive Director	IHI
Sodzi Sodzi-Tettey	Managing Director, MPH, Head of Africa Region	IHI
Tricia Bolender	IHI Faculty	IHI
Sam Wickham	Project manager	IHI
Kenny Crosbie	HIS Partnership Forum rep	HIS
Belinda Henshaw	HIS Partnership Forum rep	HIS
Laura Allison	Head of Quality Improvement	NES

Monthly report out (plus core team)		
Name	**Job title**	**Organisation**
Liz Sadler	Deputy Director, Planning and Quality Division	Scottish Government
Fiona Montgomery	Head of the Leading Improvement Team	Scottish Government
Laura Allison	Head of Quality Improvement	NES
Paula McLeay/ John Wood	Chief Officer for Health and Social Care	COSLA
Sarah Gadsden	Director of Strategic Development & Collaboration	Improvement Service
Rami Okasha	Executive Director of Strategy and Improvement	Care Inspectorate
Jason Leitch	National Clinical Director	Scottish Government
Mairi Macpherson	Head of Person-Centred Quality Unit	Scottish Government

Appendix 3

Focus groups and awareness sessions

Focus groups	
Internal HIS staff x5	Phase 2
QI Exec Leads	Phase 2
Clinical Leads	Phase 2
IJB Chief Officers	Phase 3

Awareness sessions	
HIS Partnership Forum	Phase 2 and phase 3
HIS Board Seminar	Phase 2 and phase 3
HIS Executive Team	Phase 2 and phase 3
HIS Directorate Management Team	Phase 2
QI Exec Leads	Phase 2 and phase 3
Third Sector Stakeholders	Phase 3
Scottish Association of Medical Directors	Phase 3
Scottish Executive Nurse Directors	Phase 3
Clinical and Care Forum	Phase 3
Internal HIS staff x3	Phase 3
HIS Board Meeting	Phase 3
QI Board Members	Phase 3
Chief Social Work Officers	Phase 3
HIS Strategic Stakeholder Advisory Group	Phase 3

You can read and download this document from our website. We are happy to consider requests for other languages or formats. Please contact our Equality and Diversity Advisor on 0141 225 6999 or email contactpublicinvolvement.his@nhs.net

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