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Board level "Picture-Understanding-Action": a new way of looking at quality

Jennifer Martin
National Quality and Patient Directorate, Health Service Executive, Dublin, Ireland
Maureen A. Flynn
Office of the Nursing and Midwifery Services Director, Dublin, Ireland and National Quality and Patient Safety Directorate, Dublin, Ireland
Zuneera Khurshid
UCD Centre for Interdisciplinary Research, Education and Innovation in Health Systems, University College, Dublin, Ireland
John J. Fitzsimons
National Quality and Patient Safety Directorate, HSE, Dublin, Ireland and Children's Health Ireland, Temple Street, Dublin, Ireland
Gemma Moore
National Quality and Patient Safety Directorate, Dublin, Ireland, and
Philip Crowley
Strategy and Research Directorate, Health Service Executive, Dublin, Ireland

Received 18 May 2021
Revised 12 July 2021
Accepted 10 August 2021

Abstract

Purpose – The purpose of this study is to present a quality improvement approach titled "Picture-Understanding-Action" used in Ireland to enhance the role of healthcare boards in the oversight of healthcare quality and its improvement.

Design/methodology/approach – The novel and practical "Picture-Understanding-Action" approach was implemented using the Model for Improvement to iteratively introduce changes across three quality improvement projects. This approach outlines the concepts and activities used at each step to support planning and implementation of processes that allow a board to effectively achieve its role in overseeing and improving quality. This approach matured over three quality improvement projects.

Findings – The "Picture" included quantitative and qualitative aspects. The quantitative "Picture" consisted of a quality dashboard/profile of board selected outcome indicators representative of the health system using statistical process control (SPC) charts to focus discussion on real signals of change. The qualitative picture was based on the experience of people who use and work in health services which "people-ised" the numbers. Probing this "Picture" with collective grounding, curiosity and expert training/facilitation developed a shared "Understanding". This led to "Action(s)" from board members to improve the "Picture" and "Understanding" (feedback action), to ask better questions and make better decisions and recommendations to the executive (feed-forward action). The Model for Improvement, Plan-Do-Study-Act cycles and a co-design approach in design and implementation were key to success.

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Conflicts of interest: None declared.

International Journal of Health Governance
Emerald Publishing Limited
2059-4631
DOI 10.1108/IJHG-05-2021-0047

Originality/value – To the authors' knowledge, this is the first time a board has undertaken a quality improvement (QI) project to enhance its own processes. It addresses a gap in research by outlining actions that boards can take to improve their oversight of quality of care.

Keywords Governance, Picture-understanding-action, Quality improvement, Healthcare, Boards, Directorate, Quality and safety

Paper type Research paper

Introduction

A healthcare organisation's board is its highest level of governance, overseeing all functions and assuring that the purpose of the organisation is being fulfilled. One of these duties is to ensure quality of care. The quality oversight taskwork for boards includes resourcing, evaluating and improving healthcare quality, setting, and overseeing quality priorities and ensuring leadership, culture, systems and processes are in place to maintain and improve quality (Brown, 2019). Hospitals that perform well in quality metrics have boards that actively engage in training on clinical quality issues, prioritise quality and use quality in the executive evaluation process (Erwin *et al.*, 2019). Boards with more experience in governing quality improvement (QI) explicitly prioritise QI; balance external priorities with internal investment in QI, use data for QI, engage staff and patients in QI, and encourage a culture of continuous QI (Jones *et al.*, 2017).

It is challenging for large healthcare organisations to efficiently and effectively organise the process of enabling a board to provide oversight. There is an opportunity for board level quality interventions to consider implementation context and processes to achieve the desired outcomes (Jones *et al.*, 2019). Maintaining and improving the quality of care is complex as it encompasses multiple measures with high consequences and highlights the importance of a method to organise and report quality from a governance perspective (Pronovost *et al.*, 2018). Boards play an important role in organisational change processes, and this can only be achieved when board members truly understand the multidimensional impact of their actions (Probst, 2016).

Conway's seminal article "Getting boards on board" described the key interventions boards can take to improve quality and reduce harm (Conway, 2008). However, despite increasing recognition of the importance of governance of quality and international guidance on how to support boards in achieving this from Canada, England and Scotland (Health Service Executive Ireland, 2017), there are gaps between the aspirations of the board to improve the quality of care being delivered and the concrete actions that boards can undertake to make a positive influence (Leggat and Balding, 2019) due to the lack of evidence on the actions required to effectively fulfil these duties (Brown, 2019). A recent systematic review found that there is still little research into the dynamics and processes of hospital governance (De Regge and Eeckloo, 2020).

The purpose of this paper is to address this gap between what to do and how to do it and present an application of a QI approach titled "Picture-Understanding-Action" which has been used in Ireland to enhance the role of healthcare boards in their oversight of healthcare quality. The paper describes the iterative development of the approach and the lessons learned over the last five years through testing and implementation in three board level QI projects.

Methodology

Intervention description

Based on their experience, discussion and knowledge of best practices, authors (JM and MF) proposed the preliminary components of an approach for governance for quality at board level which gradually evolved into the "Picture-Understanding-Action" approach. While working with two separate hospital boards (one large acute university hospital and one specialist university hospital), and the Directorate for the Irish national health system (Health

Service Executive), we used several QI tools to introduce changes over 6–12 board/directorate meetings. This iterative approach of working with different boards at different times allowed the development of "Picture-Understanding-Action" approach over time. This approach became the coordinating and mobilising force to (1) plan the QI approach, (2) organise baseline interviews and document reviews, (3) develop board level interventions and change packages, (4) measure tests of change, (5) design teaching and learning events and (6) facilitate board practices during meetings.

The "Picture-Understanding-Action" approach describes how and what information (Picture) is provided to the board, the collective interaction that the board must have to extract meaning (Understanding) and act appropriately (Action). It describes the activities at each step to support the planning and implementation of processes. "Picture" of quality is described as the visual and numeric presentation of the quality of clinical care data (quantitative), together with people's experience of using and working in health services (qualitative) which provide context to data. "Understanding" is described as the ability of board members to individually and collectively comprehend the information presented in assessing the quality of clinical care. "Action" is described as feedback action from board members to improve the "Picture" and "Understanding", as well as feed-forward action where the board decides and/or requests follow-up/activity of the executive in relation to the quality of clinical care information presented. The "Picture-Understanding-Action" approach is presented in Figure 1.

Description of projects

The "Picture-Understanding-Action" approach was tested in two hospital boards (Project 1 and 2) and with a board who had responsibility across a whole health and social care system (Project 3). While acknowledging the distinction between executive members of the Directorate of the National Health Service Executive and executive and non-executive members of a hospital board, we refer to the members of the three projects as board members for the ease of reading. All three projects had sponsorship from the senior most accountable person in their organisation and used a project charter to explicitly outline the project aim, assumptions and deliverables. A complete description of the projects is presented in Table 1.

Project teams

Each project was co-sponsored by the Chair of the Board/Directorate of the organisation and the National Director of Quality Improvement (PC). A team was formed comprising of members from the organisation who had executive responsibility for different areas of care,

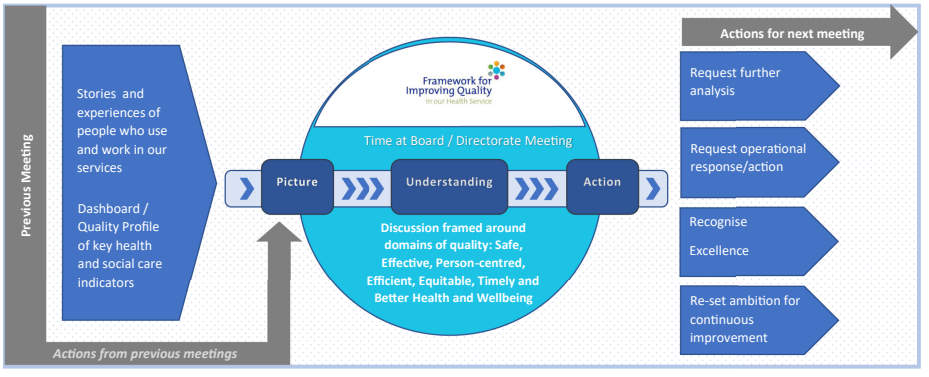

Figure 1.
Picture-understanding-action approach

	Project 1	Project 2	Project 3
Board	Acute university hospital board	Specialist children's university hospital	Directorate of national health and social care service
Number of board members	14	13	06
Project aim	Enable board of directors to get a comprehensive "picture" and "understanding" of the quality of clinical care and "Act" to hold the hospital accountable on the quality of clinical care delivered	To ensure quality of clinical care indicators have priority, are discussed, assessed and where appropriate recommendations made, and actions taken and reported back to the board	To develop a picture of quality of care, including both quantitative and qualitative information, that supports the directorate in leading the health system in improving quality
Number of PDSAs	10	12	06
Evaluation and co-design methods	Individual baseline and exit interviews, monthly surveys, in-meeting observer and QI facilitation	Focus group, monthly surveys, board workshop, in meeting observer	Baseline interviews, co-design workshop, follow-up interviews, monthly surveys, focus group, in meeting observer and QI facilitation
Project outputs	Case study and toolkit	Case study and toolkit	In progress
Duration	Feb 2014–Dec 2014	Sep 2016–Oct 2017	Nov 2018–May 2019
Supporting documentation	Monthly cover letter to board members introducing each PDSA	Monthly cover letter to board members introducing each PDSA	Monthly cover letter to directorate members introducing each PDSA
Quantitative information			
Title of document	Quality dashboard	Quality dashboard	Quality profile
Domains of quality	04	04	07
Indicators	10	06	12
Display/Analysis	Line chart	Statistical process control (SPC) chart	Statistical process control (SPC) chart and funnel plot
Supporting text structured format	Identify, situation, background, assessment recommendation (ISBAR)	Background, assessment, recommendation (BAR)	What, why, interpretation (First World War)
Other features	Summary page with icons	Annotations to charts	Summary page with icons
Qualitative information			
Patient and staff experience of care stories	No qualitative information	Complaint or compliment read at start of meeting	Four methods tested • Patient/staff story viewed/read • Patient/staff attends meeting • Patient/staff interviewed by director and story told at meeting • Themes from qualitative surveys summarised and presented

Table 1.
Intervention description across the three board QI projects

who had clinical/subject matter expertise or who had responsibility to collate and analyse data for the organisation. This team was facilitated in using a QI approach by two of the authors (MF and JM) together with other analytic and QI experts from the National QI team. A member of the project team attended board meetings in project 2 to collect feedback through observation and in project 1 and 3 a QI facilitator attended to facilitate discussion on quality as well as observation. One or more project champion/s emerged organically in each project who promoted and built support for the project, and together with the QI facilitator guided board discussion towards identification of appropriate actions.

Picture of the quality of clinical care

In project 1, the project team identified criteria for the selection of the measures, aligned to the four domains of quality as identified by Health Information and Quality Authority (Health Information and Quality Authority, 2012), to be presented monthly in a Quality Dashboard. The indicators were presented using line charts to show change over time. All graphs were presented on one page. A supporting written report of the graphs, adapted from the identify, situation, background, assessment recommendation (ISBAR) methodology was produced by the project team in consultation with subject matter experts (Identify the indicator, Situation i.e. describe the graph, Background i.e. describe context effecting these findings, Assessment of what the indicator is telling the board, and Recommendations on what the board might request of the executive).

In project 2, a co-design approach was undertaken, and the project team supported the board members in identifying domains of quality relevant to the specific hospital context. The line charts evolved into statistical process control (SPC) charts to bring an understanding of whether change over time was normal or a real signal of change. The supporting report called BAR (Background, Assessment and Recommendation) was developed. The board also expanded their approach of the "Picture of the quality of clinical care" to incorporate patient experience drawn from feedback and complaints which were presented at the start of the meeting. Using real lived experiences grounds the board and helps "people-ise" the quantitative data and focuses on the profound impact that the variation in the quality of care described by graphs and tables of data, has on their lives (Thompson, 2013).

The co-design approach was enhanced further in project 3. The board chose to combine the four domains of quality recommended by the Irish Health Information and Quality Authority (Health Information and Quality Authority, 2012) with the six domains of care recommended by the Institute of Medicine (IoM) (Institute of Medicine, 2001). These seven domains selected were safe, effective, person centred, efficient, equitable, timely and better health and wellbeing. As the Directorate oversaw the entire Irish health system, the indicators were selected to be a representation of different areas of care, such as acute and community care. Funnel plots were added to demonstrate the variation across the health system. All graphs were presented in a summary profile report. The accompanying text was structured as IIP (Indicator description, Interpretation of chart and assessment of Performance). Icons were co-designed and added to represent and highlight key messages such as new data or a signal of change to aid quick interpretation of charts.

The "Picture" was expanded further in project 3 to include the experience of people who work and use the Irish health service. The board members and the project team co-designed and tested four different methods of bringing these experiences into the boardroom: (1) people sharing their experience of using or working in health service either written, narrated or in video format, (2) an existing source of information that captures people's experience (such as patient and staff surveys which include qualitative information) is presented as a brief report (3) a person is invited to the Directorate meeting to speak about their experience of quality (4) a board member meets a person one-to-one and presents this "interview" at the Directorate meeting discussing both the person's experience and the member's learning.

Understanding of the quality of clinical care

Measurement in the field of healthcare is complex and yet board members are not recruited with an expectation that they have expertise in such measurement. The boards of the two hospitals were composed of a mix of executives and non-executive directors; the Directorate of the Health and Safety Executive (HSE) were all executive directors. Boards contained a mix of clinical and other professionals, and there were no statisticians or information experts on the boards.

The project team undertook several approaches to enhance the board members' "Understanding" of quality. At the start of project 1, one-to-one interviews were held with board members to establish a baseline for their understanding of quality and to seek their suggestions on areas for support and development. QI facilitators attended board meetings to answer questions and support interpretation of information. A workshop was conducted at the mid-project point to support the collective understanding, which included role play exercises interpreting the dashboard information. Board members were provided with monthly reading material. An international expert also shared their experience in one of the board meetings. In addition, the quality of care indicators were introduced incrementally to allow time to introduce the indicator e.g. what is "s.aureus bloodstream infection" and why is it important to measure.

The collective understanding workshop and reading material was also used in project 2. In addition, one-to-one sessions were provided on request to board members. In project 3, the QI facilitator "modelled" the "understanding" by systematically speaking through the interpretation of each graph. Project 3 commenced and ended with a workshop with the purpose of co-design, education on indicators and analysis. One-to-one training was offered and accepted by some board members who either did not attend the workshop or who desired some additional support.

The knowledge and skills of board members to interpret information and meeting to collectively interrogate information are critical to governance. Board members bring vast experience in clinical and non-clinical areas. The ring fencing of in-meeting time to discuss the quality of care, in all three projects, was essential to enable board members to share their insights and allowed information to be turned into collective intelligence. A QI expert attending board meetings in projects 1 and 3 facilitated in-meeting learning. In all projects, initially it was observed that non-clinical board members were less vocal. However, over time, and after training workshops, these board members contributed more with valuable insights.

Action for the quality of clinical care

The Model for Improvement and Plan-Do-Study-Act (PDSA) cycles (Langley *et al.*, 2009) were used in all three projects and all board members were involved in testing changes using agreed change packages. One of the project team members attended each meeting to observe the effects on the changes introduced in the board meeting and to plan for the next cycle. Board members could give verbal feedback at the meeting or by completing a monthly paper survey (collected during/after the meeting). In projects 2 and 3, the board members co-designed the quality information, through facilitated workshops where they prioritised indicators for inclusion. In all projects, board members provided feedback on the "look and feel" of the data, thereby improving its presentation and supporting interpretation. In project 3, board members also co-designed and tested four approaches to engaging with the experiences of people who use and work in health services. A wrap-up workshop was held where they collectively reviewed the qualitative and quantitative information and agreed how they would transition the project to business as usual.

Several processes and structures support "Action" at board level. The board agenda configures the meeting and guides the chair in conducting their business. The agenda determines discussion items and time allocated to each item and is therefore a key tool to

prioritise and support action. All three projects reconfigured the board meeting agenda to prioritise the quality of care by putting it first on the agenda and allocating it time: 25% of total meeting time in first two projects and 30 min in project 3.

The minutes record the discussion, decisions and actions/recommendations made at board meetings and are the key record and communication of the boards' direction. In projects 1 and 2, the meeting minutes were restructured to include meeting times and an index of board assessments, decisions and actions. However, the project team noted that it can be challenging for the board secretary/minute taker to capture these decisions and actions. In project 1, a scale (level of engagement scale) was developed and used for the meeting observer to record the level of engagement from passive receipt of information, discussion, decision and/or action as appropriate. This scale was useful in quantifying progression from passive receipt to discussion, even where decisions and actions did not happen. In project 3, the minute taker was provided a tool to note decisions and actions for each quality-of-care indicator discussed by the board. A board discussion prompt sheet was introduced in all three projects to support in-meeting discussion of indicators, including undertaking the steps of reviewing, making an assessment, deciding and requesting an action if required.

Findings

Picture

One benefit of using "Picture" in this QI approach was that it focused attention on planning and delivering information which was fit for the purpose of the boards. The quantitative picture, in the form of a quality dashboard/profile, should focus on the board selected "critical few" indicators representative of the health system (where possible) to enable sufficient attention to be given to those indicators, balanced across domains of quality and areas of service.

Graphs are more informative than tables and text, and the most effective graphs have the following attributes:

(1) Demonstrate change over time, not point in time comparisons.

(2) Demonstrate variation across the system.

(3) Include targets.

(4) Avoid red, amber, green.

(5) Have icons to support quick interpretation.

(6) Have supporting high-level text to facilitate more detailed understanding.

(7) "People-ise" the data, i.e. translate rates or other calculations into number of people.

SPC which demonstrates change over time and variation focuses board members' discussion on real signals of change rather than responding to inherent variation in the data, one of the pitfalls of red, amber, green. Graphs alone are not sufficient, and a supporting text is required (Anhøj and Hellesøe, 2017). There is a tension between having enough information, so board members understand the information they are looking at, and little enough so that the important information is not lost within voluminous words. Different board members also have differing needs. To address these differing requirements, having summary pages where all indicators are displayed briefly with icons instead of interpretative text, and having supporting section with each indicator together with supporting text is beneficial, along with a glossary of terms and list of abbreviations.

These projects championed the saying*: "no stories without data, no data without stories"* (Compton-Phillips, 2017). Commencing a meeting with a lived experience sets the tone for the board meeting, and board members felt that this influenced the whole meeting, reminding

them of why they were there given their distance from frontline staff and patients. In their post-project interviews, project 3 board members identified that the patient and staff experiences were as important as the quantitative information. However, the purpose of bringing these experiences to the board was not to solve problems or act, but rather to draw attention to the seriousness and impact of their decisions on people's live and to "people-ise" the quantitative information (Judd *et al.*, 2016).

Understanding

The benefits of using the "Understanding" approach are focussing on meeting the board members' needs, providing fit for purpose training and supporting processes to allow for collective understanding to be reached during in-meeting discussions. Applying a QI approach to 'Understanding' was helpful in bringing a co-design approach and iterations of change that were led by the board at a pace suited to their needs.

Many board members do not possess clinical experience or measurement skills, therefore, it is important to provide education on "what" is being measured and "why" it matters. It is also essential to provide training on methods of analysis and display including SPC charts and funnel plots early in the project. Introducing new indicators incrementally is worthwhile to allow time to develop understanding of both the measure and the analysis used. In providing information to the board, attention should be paid to language, including avoiding acronyms, and providing a glossary of terms and descriptors. The one-to-one interviews, co-design workshop and the use of multiple training methods proved to be effective. QI facilitators attending the meeting facilitated board members' understanding of how to read and interpret quantitative information.

A formal training workshop provided time to develop skills, collective learning and shared ownership amongst board members. It also introduced peer-to-peer learning and support. Some board members found the targeted reading (one article per month) useful. An external board member (of international standing) sharing their insights and experiences (showing the way) built board members' confidence in understanding the quality of care and the value of their efforts in improving their process of oversight.

During these QI projects, it was essential to have an observer (ideally with QI knowledge and skills) at the board meeting to gain an insight of board members understanding. This can be supported by using a "level of engagement scale" to gauge board members' collective understanding. In our experience, monthly self-rated surveys and feedback forms were less useful when compared to observations and face-to-face discussions while engaging at the level of a board. Time is a key ingredient to understanding, both time for training such as workshops, and time in-meeting for collective discussion. Board members individually bring a wealth of experience and insight. Ring-fenced time in meetings is essential for collective review of the 'Picture', and discussion where board members can apply their individual insight to translate that picture into collective board understanding.

Action

In co-designing the picture of quality, the board members acted by identifying the indicators to prioritise and the methods of engaging with patient and staff experience. This co-design leads to ownership of the information. Undertaking this work collectively in a workshop enhances collective ownership of the project. Board meetings rely on processes and structures including setting the agenda and recording decisions and actions within minutes. Changing these processes to put quality first, giving it 25% of meeting time and establishing a method to record decisions and recommendations are simple and effective actions to prioritise quality oversight.

"Action" is enabled when the board receives the right information correctly analysed and the board members have the skills to interpret that information. However, this does not

necessarily lead to the "action" of holding the organisation to account. Therefore, consideration should be given to methods to support the board to actively question, make assessments, make recommendations to the executive and seek follow-up feedback. Some of the methods to support board members in achieving the action of holding the organisation to account include:

(1) A board member championing the project and guiding the discussion towards identification of appropriate actions, with the help of the QI facilitator.

(2) Using a decision and action flow sheet, which takes board members through the steps of analysis, assessment and decision, to make recommendation/requests of the executive.

(3) Structuring the agenda to explicitly identify where information/presentation is for "decision/action" rather than for information.

(4) Structuring the minutes to capture decisions/actions request by the board and reviewing them at the subsequent board meeting.

Discussion

To our knowledge, this is the first time a board has undertaken a QI project to enhance its own processes. The purpose of this paper is to describe the iterative development, implementation and learning from a QI approach we called "Picture-Understanding-Action". The Model for Improvement and PDSA cycles were used to guide the design, testing and implementation and "Picture-Understanding-Action" approach. This section uses Deming's system of profound knowledge to reflect on the effectiveness of the project in enhancing board members knowledge and leadership for improvement quality oversight. Deming described creation of profound knowledge as consisting of four elements (Baker, 2016), which are (1) understanding the properties of the system to enhance the impact of changes on the system as a whole, (2) understanding variation in the system and differentiating between common and special cause variation, (3) theory of knowledge (4) psychology of change (Langley *et al.*, 2009). The "Picture-Understanding-Approach" draws on the system of profound knowledge as described in Table 2.

Appreciation of the system

One limitation of international frameworks in measuring healthcare quality is that they often recommend adopting universally applicable measures without considering the purpose and institutional contexts. In practice, quality indicator selection is influenced by national regulatory priorities, institutional configurations and understandings of quality (Beaussier *et al.*, 2020). In contrast, the "Picture-Understanding-Action" approach is based on an appreciation of the system. It acknowledges that quality indicators are being reported at different levels within the organisations and health system, but for oversight of quality, it is appropriate to view few board-selected indicators representative of the whole organisation or system (Heenan *et al.*, 2010).

Studies investigating what constitutes a good healthcare quality indicator have outlined various characteristics. These include the significance of the indicator, its relevance to a setting, the ability to measure outcome of interest, evidence of prior use of the indicator and the practicalities of data collection and analysis (Jones *et al.*, 2014). To select the most appropriate indicators representative of healthcare quality, these projects used a co-design approach where board members collectively and iteratively chose the indicators. This restricted the number of indicators the board was evaluating to those most important to them. Instead of drowning in data, the boards were able to prioritise indicators.

Components of system of profound knowledge	'Picture-understanding-action' corresponding elements
Appreciation of a system	The approach assumes that the system is sum of different parts comprising of people, processes, equipment, relationships and interactions. Performance is being monitored at all levels across the system. The board quality agenda is based on the select few measures that best represent the priority areas and have the most impact for system improvement
Understanding variation	Using statistical process control methods to present data over time to visualise patterns and understand variation due to common and special causes to take actions accordingly
Theory of knowledge	Using PDSA cycles to skilfully build knowledge so that board members gain knowledge through the use of data, supported by just-in-time training on measurement and data. The iterative PDSA approach to improve the indicators and their presentation also contributed to theory of knowledge
Psychology of change	Understanding how board members interact with each other, acknowledging the differences in preferences, backgrounds and motivations of board members and including and involving them in the process through co-design

Table 2. 'Picture-Understanding-Approach' mapped onto Deming's system of profound knowledge

Understanding variation

SPC analysis supports understanding variation. While traditional board practices focus on the picture, i.e. providing a board with a requested report, this approach significantly enhances that picture by using SPC methods to understand variation. These projects suggest that the "right picture" should be analysed and displayed to show variation over time. SPC is critical in distinguishing signals from noise while evaluating quality, however, most board papers do not illustrate the role of noise at all (Schmidtke *et al.*, 2017). Icons and some supporting interpretative text support different board members' information needs. Moving from simple time series to SPC greatly enhanced understanding of variation over time. Co-design with the board increased with each project and lead to greater ownership and tailored information.

Theory of knowledge

Another critical element of the system of profound knowledge reflected in the "Picture-Understanding-Action" approach is building knowledge of the board and directorate members by providing training and support on QI methods and particularly SPC methodology. Evidence suggests that boards that have received training in QI are associated with high-quality care (Jones *et al.*, 2017) and that training board members in SPC methodology can assist in informed decisions and actions (Thor *et al.*, 2007). The "Picture-Understanding-Action" approach achieved this by involving board and directorate members in the PDSA cycles, providing necessary and bespoke QI training to the board and directorate including workshops, one-to-one training, tailored reading and expert invited guests sharing learning. Knowledge of the system was built through the iterative PDSA approach to identifying and improving the quality indicators so that by the end of each project the indicators were the board selected few measures reflective of the quality of the organisation. In addition, incorporating people and staff experience in projects 2 and 3, greatly enhanced the knowledge and deep understanding of the system. The projects also contributed towards reaffirming the importance of the Framework for Improving Quality in Our Health Service (Health Service Executive Ireland, 2016) by demonstrating the importance of leadership, governance, person and family engagement, staff engagement, measurement for quality and use of improvement methods.

Psychology of change

There is a growing awareness about the limitations of quality monitoring metrics in providing complete insights if not accompanied by soft intelligence in the form of stories and experiences from staff, patients and carers (Martin *et al.*, 2015). Therefore, it is important to consider the psychology of change or the human side of change in governance for quality. Real world experiences complement the quality indicators; they "people-ise" the data, grounding it in personal experiences, something which is often absent in traditional board meetings. Bringing people's experience to the board supported them in understanding those who use and work in their health system, a step towards leading and motivating them. Successful QI is often referred to as an art and science that requires expertise in QI methodology and softer, change management skills (Hart *et al.*, 2015). These softer skills of change management also emerged as an important factor in this approach. Board members are involved in overseeing changes at a strategic level and this approach facilitated the board members in fulfilling their role as agents of organisational change. This highlights the importance and transferability of the approach to managing change at board level.

Evidence suggests that there is variation in how clinicians, managers and governors (including board members) interpret clinical governance which may lead to challenges during implementation (Flynn and Brennan, 2020). Board members found the "Picture-Understanding-Action" approach quite intuitive as it acknowledged and considered these individual differences, interactions and relationships in the design and implementation of projects. These projects did not focus on building the boards' knowledge or expertise on leading change through their influence and interactions with people in the organisation, whether the executive or wider. There would be value in future projects developing board members' knowledge and skills at influencing change through their relationships with the executive and the wider staff of their organisation.

Limitations

The QI projects were resource and time intensive and project durations ranged from nine to eighteen months. It took longer than anticipated to handover projects to the organisations to continue business as usual. The projects also relied on face-to-face time with board members which was a big ask and commitment, particularly for non-executive voluntary members. It was easier to observe changes in "Picture" and "Understanding", but quantifying "Action" and establishing a causal relationship between projects and actions was difficult. Additionally, project team could not directly observe all "Actions" such as board members going on to advocate the transferability of the approach to other boards.

Areas for further research

Future projects can build on the resources and learning from these board level QI projects, and the potential to develop more self-directed and "train the trainer" style resources to allow for other boards to implement this approach themselves. Further projects may evolve in other ways such as the "Picture" of quality might extend, for example, board members going out to experience care directly, such as undertaking quality and safety walk-rounds or listening sessions with patients and staff. Further support in developing the psychology of change may enhance the reflection of Deming's system of profound knowledge to board members. Another area of future research is to examine the usefulness of the approach for change management at the level of the boards. There were indications of a shift in mindsets of board members and board members taking "Action" based on "Picture" and "Understanding", but it is difficult to quantify these changes and is another area for future research. The framework provided encouraging outcomes with the three boards included in the QI projects and indicates a possibility of usefulness of the approach for non-profit boards which can be further explored in future. Although the approach was exclusively developed with quality

governance at board level as the goal, it has potential for transferability to other areas of board governance such as finance and upskilling boards in other areas of accountability.

Conclusion

"Picture-Understanding-Action" is a pragmatic approach to improving boards' leadership and oversight of quality and its improvement that was developed through three iterations. It addresses the research gap between guidelines and frameworks to actual implementation of improving quality oversight. The "Picture" element of the approach enables board members to focus their attention on the quantitative and qualitative information relevant for their governance purpose. The "Understanding" element of the approach focuses on meeting board members' education and training needs and collective intelligence. The "Action" element of the approach was successful in enabling board members to lead in indicator selection, change board processes to put quality first on the meeting agenda, giving it 25% of meeting time and establishing a method to record decisions and make requests of the executive to drive improvements in the quality of care. The experiences of people who use and work in health services emerged as an important element in "people-ising" quality assurance and governance data. The approach also evidenced the usefulness of using SPC methodology for quality assurance at the level of a board. A retrospective reflection on the approach revealed its usefulness in applying Deming's framework of profound knowledge at a board level. We propose our tested "Picture-Understanding-Action" approach for other healthcare boards to adopt and make their own.

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Corresponding author
Jennifer Martin can be contacted at: jennifer.martin@hse.ie

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