Applying a new approach to the governance of healthcare quality at board level

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Abstract

Purpose – This paper describes a quality improvement project to improve oversight of quality at national board level using statistical process control (SPC) methods, complimented by a qualitative experience of patients and frontline staff. It demonstrates the application of the "Picture-Understanding-Action" approach and shares the lessons learnt.

Design/methodology/approach – Using co-design and applying the "Picture-Understanding-Action" approach, the project team supported the directors of the Irish health system to identify and test a qualitative and quantitative picture of the quality of care across the health system. A "Quality Profile" consisting of quantitative indicators, analysed using SPC methods was used to provide an overview of the "critical few" indicators across health and social care. Patient and front-line staff experiences added depth and context to the data. These methods were tested and evolved over the course of six meetings, leading to quality of care being prioritised and interrogated at board level.

Findings – This project resulted in the integration of quality as a substantive and prioritised agenda item. Using best practice SPC methods with associated training produced better understanding of performance of the system. In addition, bringing patient and staff experiences of quality to the forefront "people-ised" the data.

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Originality/value – The application of the "Picture-Understanding-Action" approach facilitated the development of a co-designed quality agenda item. This is a novel process that shifted the focus from "providing" information to co-designing fit-for-purpose information at board level.

Keywords Quality improvement, Governance, Oversight, Improvement, Co-design, Patient and staff experience

Paper type Research paper

Introduction

There is a growing body of literature on the effective role of board oversight in governance for quality and patient safety in improving quality of care (Millar *et al.*, 2013). Boards that spend more time on their quality agenda item have better process-of-care rates as compared to those that spend less time (Mannion *et al.*, 2016). Including quality as an agenda item at board meetings allow members to deliberate on quality performance and is linked to improved quality management (Botje *et al.*, 2014). Research suggests that healthcare board members should strive to keep quality and safety as one of the top priorities, and routinely review safety metrics and narrative reports (Gandhi *et al.*, 2016).

While boards have statutory duty to ensure the quality and safety of care, there is variation amongst boards in the priority they assign to this responsibility, their training and knowledge to assess improvement and the type of quality measures they rely on (Goeschel *et al.*, 2011). Even though safety is often ranked as high priority by boards, in reality it is often not discussed at every meeting (McGaffigan *et al.*, 2017).

Governance for quality is a pertinent issue for health systems across the world. The New Zealand Health Quality and Safety Commission is working to challenge outmoded views of healthcare governance that are overly focussed on financial health (Health Quality & Safety Commission New Zealand, 2016). The Australian Commission on Safety and Quality in Healthcare has identified board participation in defining safe and high-quality care and the review of key quantitative and qualitative quality outputs as essential to a healthcare board's role in managing quality (Australian Commission on Safety and Quality in Health Care, 2015). A recent report in the UK based on input from board members of healthcare boards revealed that board members considered the discussions of lived experience of healthcare helpful in keeping the board focussed on quality (Smith *et al.*, 2021). A study based in the USA demonstrated that in organisations where the board regularly received reports on quality performance, performed better than those that did not (Szekendi *et al.*, 2015).

Evidence suggests a limited understanding of the detailed actions that board members could take to fulfil their obligations with regards to quality and safety (Freeman *et al.*, 2016). There is a need to identify best practices for board knowledge and practice to optimise board oversight of quality and safety (McGaffigan *et al.*, 2017). The Institute for Healthcare Improvement (IHI) proposed a framework for effective board governance of health system quality (Daley Ullem *et al.*, 2018). This framework is supported by an assessment tool, and other support guides aimed at reducing variation in quality oversight (Daley Ullem *et al.*, 2018). However, this framework offers limited actionable steps that a board can take to include quality in its agenda and its continuous monitoring. A growing focus on the subject has highlighted the need for more research on the mechanism boards can follow to achieve expected outcomes, educating and training boards, identifying and presenting relevant and timely measures to the board, allocating appropriate time to quality on board meetings agendas and "people-ising" the data by including patient and staff stories (Thompson, 2013).

In Ireland, the Board of the Health Service Executive (HSE) fulfilled governance duties from 2005 until 2011. In 2011 the Minister of Health stood down the previous board and established an alternative in the form of an internal group of national HSE directors known as the "HSE Directorate". The HSE directorate fulfilled all traditional responsibilities of a board of directors until a board was re-established in 2019 (after this project was complete). In 2018, the HSE directorate identified that the information they received about the quality of care was not at par with their sight of financial matters. Martin and Flynn (Martin *et al.*, 2021) recently developed the "Picture-Understanding-Action" approach that outlined the steps which support a board to oversee and improve quality. The HSE directorate requested the national QI team support them to develop a quality agenda item for their meetings in order to design a robust process to support the incoming board in their role of overseeing quality. The aim of this paper is to describe the development of the HSE directorate quality agenda item and the lessons learnt from the application of a co-design and "Picture-Understanding-Action" approach.

Methodology

The directors set out to develop a standing quality agenda item to handover to the incoming board that could be sustained in the long-term and improve accountability so that better actions could be taken at board level. The authors were in addition keen to further enhance the "Picture-Understanding-Action" (Figure 1) approach to support better internal processes to support oversight at board level.

At the start of the project, quality was not discussed in a regular or structured way during directorate meetings. Over a six-month period, the project aimed to establish a standing quality agenda item containing the necessary information "to enable the directors to have oversight of quality and its improvement". The quantitative "Picture" included a quality profile of selected indicators representative of the health system using statistical process control (SPC) methodology. The qualitative "Picture" included experiences of people including patients, staff, service users, carers and families (people's experience of quality).

Steps of developing the quality agenda item

The project outcomes and expectations were informed by baseline interviews with HSE directors, a desktop review of international approaches and consultation with Irish clinical and data subject matter experts.

A co-design workshop was then conducted with HSE directors where the project team presented a shortlisted set of quality indicators and patient/staff experiences of quality for discussion. The directors agreed that the quality agenda item would be composed of both quantitative and qualitative components. They selected a number of methods to engage with the experiences of patients, staff, service users, carers and families in the health system (Figure 3). The aim of the quantitative component (quality profile) was to present a balanced view of the "critical few" quality indicators across acute and non-acute services, using SPC methodology. The directors reached a consensus on using the six domains of quality outlined

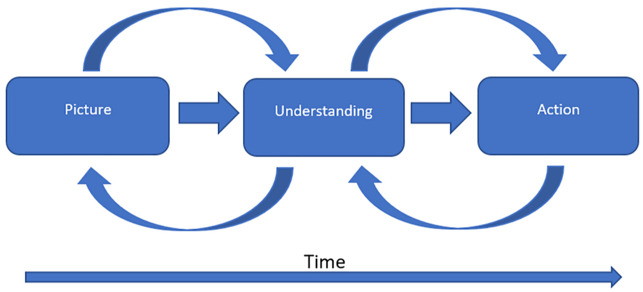

Figure 1.
Picture-Understanding-Action approach

by the Institute of Medicine (IOM): safe, effective, person-centred (rather than patient-centred), timely, efficient and equitable (Institute of Medicine Committee on Quality of Health Care in, 2001). An additional domain of better health and well-being (Health Information and Quality Authority (HIQA), 2012) was added in order to provide them with a balanced/global view of the quality of services. The directors shortlisted and allocated measures under each of the seven domains. The directors also agreed:

(1) To make quality a regular discussion item at directorate meetings

(2) That quality would be the first item on the agenda and discussed for at least 30 min

(3) To use a plan-do-study-act (PDSA) approach to refine the quality agenda item

Three sets of PDSA cycles were used in parallel over the course of this six-month project. The first set of PDSAs focussed on the indicators in the quality profile. The first version contained seven indicators and over the next five months, five additional indicators were added. The second set of PDSAs focussed on improvement in display of individual measures and changes to single measure graphics, based on feedback from directors during and after meetings. This involved for example, adding icons to flag a signal of statistical change and the addition of a summary page to provide an easy access overview of the data. The first (November 2018) and last (April 2019) quality profile presented as part of the project during the directorate meetings is shown in Figure 2. The seven domains of quality and the indicators for each domain for May 2019 quality profile are presented as Table 1 and demonstrates the wide range of indicators that were being considered at board level. The third set of PDSAs focussed on "People's Experience of Quality" (PEQ). Four different approaches to sharing PEQ were tested at Directorate meetings: (1) a video of a staff member experience, (2) review and discussion of the qualitative information in a patient experience survey, (3) a service user attending the meeting to share their experience and (4) an HSE director meeting a patient and then narrating and discussing their experience in the meeting. All meetings were supported by a participant-observer QI expert from the project team. The sets of PDSAs are presented in Figure 3(a)–(d).

At the end of the project, an evaluation workshop and one-to-one interviews with directors were used to capture feedback and learning to further refine the approach based on their experiences. The directorate then offered the outputs and learning from the completed project to the newly established board of directors of the Irish health system, who now use this approach to quality and safety oversight.

Ethics. The project was initiated on the request of the HSE Directorate and was conducted by an internal HSE team and deemed exempt for formal ethics review. However, ethical mindfulness guided every aspect of the project. At the commencement of the project, directors were given information (project charter) and agreed to participation. The project team maintained overall responsibility for the collection, analysis, reporting and security of data and findings. Informed consent was obtained before all interviews and all directors were aware that the findings would be disseminated. All data included in the paper have been anonymised.

Findings

The quality profile and the PEQ provided a "Picture" of quality to the directors of the national health service. The directors reached a collective "Understanding" of the information presented to them during the directorate meetings. This understanding occurred through (1) collectively discussing the quality profile (2) reflecting on the PEQ presentation and (3) adding context to the information through their expertise and knowledge of the system. "Understanding" was supported by the presence of a participant-observer QI expert from the

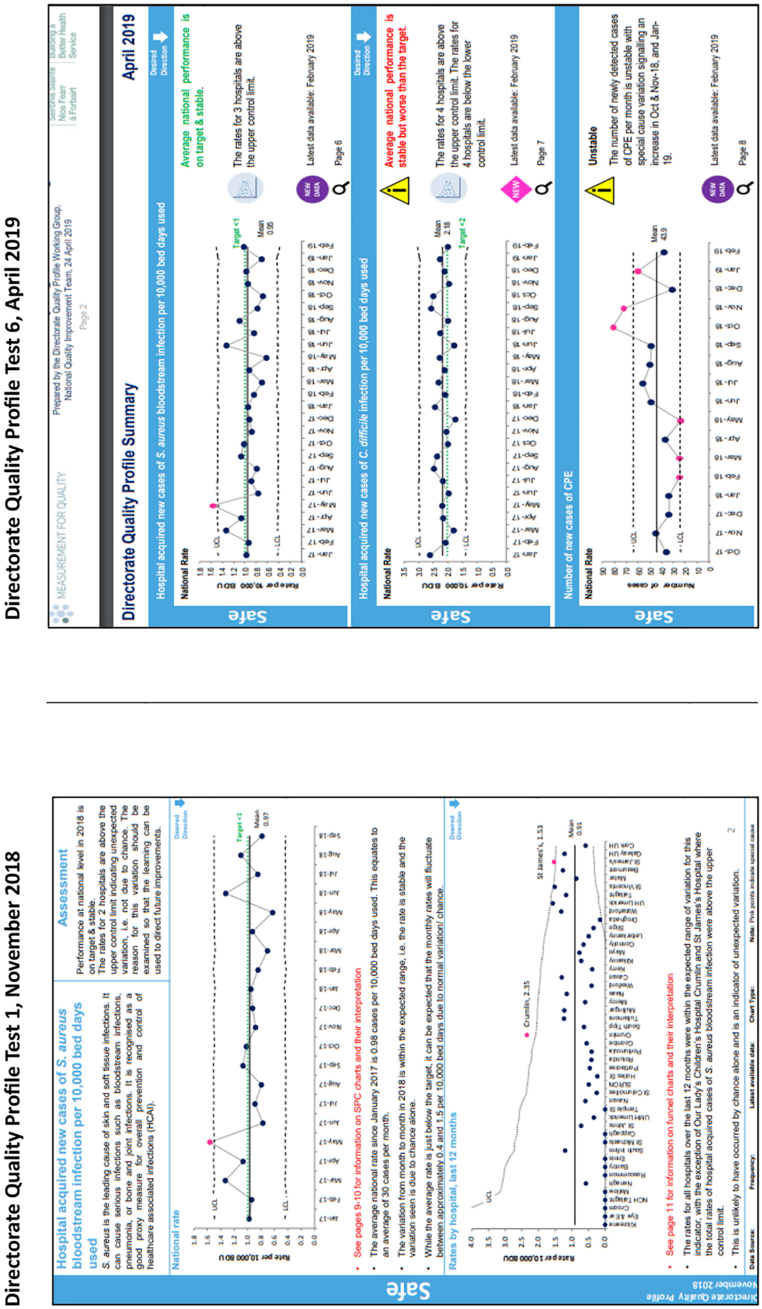

Figure 2.
The evolution of the "Safe" quality domain over six tests of change

Safe	Hospital acquired new cases of *S. aureus* bloodstream infection per 10,000 bed days used Hospital acquired new cases of *C. difficile* infection per 10,000 bed days used Number of new cases of CPE
Effective	Return of spontaneous circulation (ROSC) at hospital
Person-centred	Percentage of all attendees aged 75 years and over at ED who are discharged or admitted within 24 hours of registration Bed days used in CAMHS inpatient units as a percentage of total bed days
Timely	Percentage of people waiting <13 weeks following a referral for routine colonoscopy or OGD Hip fracture surgery within 48 hours
Efficient	Weekly number of delayed discharges Day of surgery admission rate
Equitable	Homeless services: service users' health needs assessed within 2 weeks of admission
Better Health & Wellbeing	MMR vaccination rate

Table 1.
The seven domains of quality-quality profile May 2019

project team in the meetings who provided support to directors in interpreting the statistical data. This "Picture" and "Understanding" led to "Action". While the goal of "Action" ultimately is to hold the system to account for the quality and safety of care provided, the primary purpose of the project was to produce a robust process for quality oversight to hand over to the incoming board. Therefore, the actions in the project were aimed at improving the quantity and presentation of information. However, to ensure that the information generated during the project did inform the action of holding the organisation to account, the national performance management report was reviewed immediately following the quality profile and any findings from the quality profile were used to inform the performance management discussion, thereby ensuring no insights were ignored. Directors found that PEQ presentation influenced their thinking and focus throughout the rest of the meeting, giving

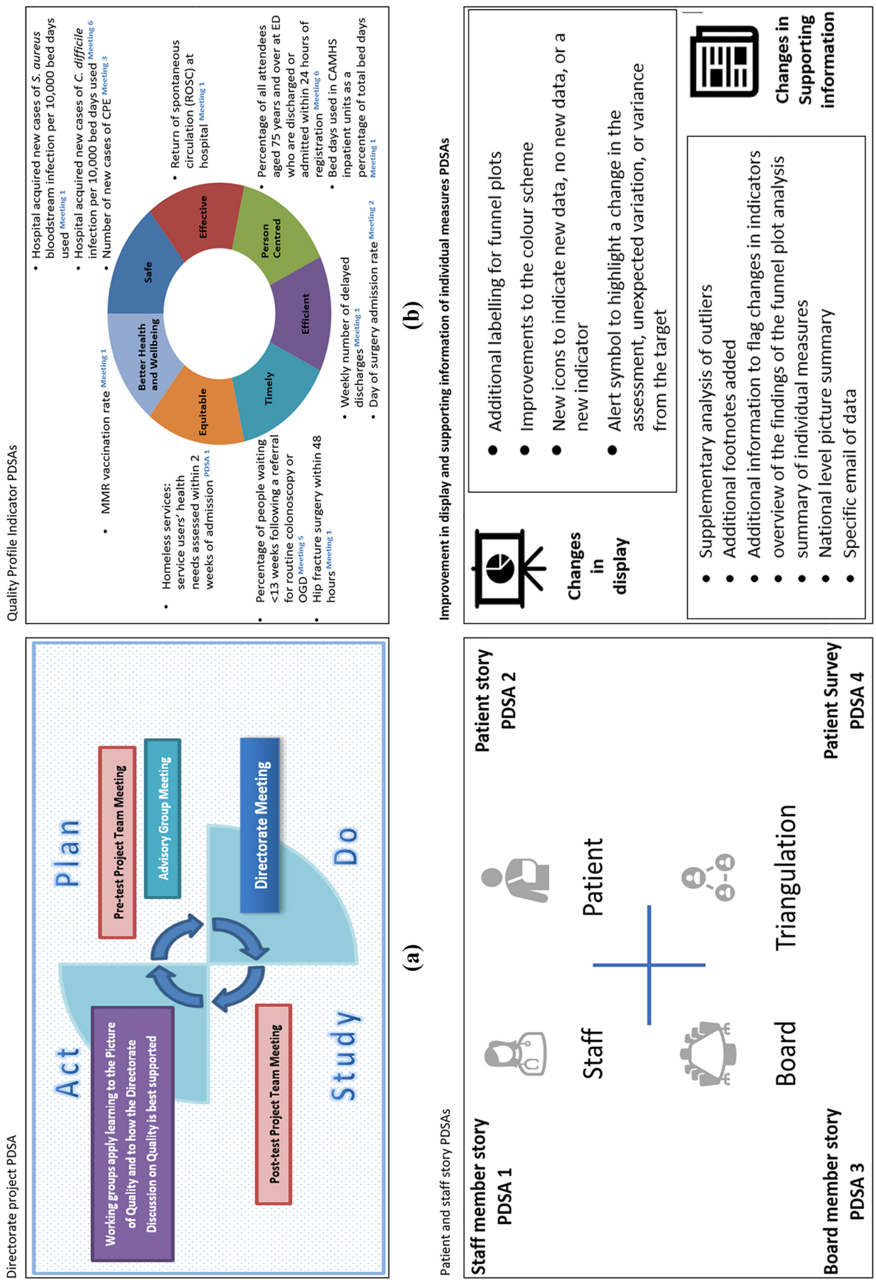

Figure 3.
An overview of the structure of the PDSA cycles

them a different perspective on the operational reports that they received. Some specific actions were initiated too with direct patient impact, for example when the director recounted the story from the patient and spoke of the large costs they paid out for hospital parking required because of their very frequent all day visits, another director took an action to investigate putting a cap on car parking costs for patients with frequent day appointments.

The co-design approach enhanced the directors' ownership of the project, their understanding of the QI approach and methods used and importantly, their commitment to the project. The co-design workshops at the start and end of the project provided time and space for directors to think collectively and strategically about improving their approach to overseeing quality of care and to be active participants in innovating, something they would normally not have the opportunity to do. One director commented at post project interviews:

> Yes, I think that was very useful and I was particularly struck by the fact that we got so many of the senior people into a room for that length of time, to talk about quality and safety like that, was probably a first.

The co-design approach contributed to the development of a "Picture" of quality that met the needs of the directors and incoming board, supported their "Understanding" of quality and involved the directors in "Action" to iteratively improve the agenda item.

The PDSA approach to improvement was proposed by the authors because it is widely known as an effective method for testing and delivering change. It served as a way of providing the directors with the experience of applying a change method promoted by the HSE. Using a PDSA approach within the Directorate monthly meetings enabled the directors to iteratively co-design the changes to the quality agenda item, with minimal disruption to the business of the HSE directorate meeting. This highlighted the usefulness of the PDSA methodology in engaging people in a QI project who often do not have the time to step out of their role to do a project. The directors described the process as,

> It went through a good process in trying to determine what were the measures that should be used and how they were presented, how the narrative supported the information that was shown diagrammatically.

The project demonstrated that a balanced "Picture" of quality should include both quantitative indicators as well as PEQ. The quality profile presented a critical few indicators representative of the Irish health system to be reviewed monthly. The use of SPC methods in presenting the quantitative measures in the quality profile proved to be effective as noted by a director:

> The way you (project team) have presented the information and the statistical rigour in presentation I think is a thing that I will certainly learn from and it is good to know that we have that skill set in the organisation.

The qualitative element of the quality agenda item which shared PEQ, was reported by directors as highly engaging and "people-ised" the data. Starting the meeting with a patient or staff experience set the tone for the rest of the meeting and helped the members view other items through the lens of the human impact of their decisions. In addition to this, it led to the directors asking more questions about what is being done to act on this valuable information. The element of real lived-experiences highlighted issues that did not usually show up in the metrics and provided additional insights. It grounded the quality agenda in human experience as described by one director:

> It is very easy for us, [HSE directorate members] to get lost in numbers and paperwork and everything else and forget why we are doing this.

Following the completion of the project, the HSE directorate was replaced by a non-executive board of directors in 2019. The HSE directorate offered the quality agenda item developed during this project to the new Board as an approach to support them in their role in overseeing and leading quality. The HSE Board's Safety and Quality Committee enthusiastically agreed to add the Quality Profile and the PEQ as standing items on their agenda. The Safety and Quality Committee continue to collectively review and discuss these items and request actions be taken by the executive of the HSE or escalate matters to the full board using the picture-understanding-action approach. The quality profile is also presented at the board meeting by the Chair of the Safety and Quality Committee. The Safety and Quality Committee continue to engage with the development of this item, holding an annual workshop to review and update the quality profile and further develop the PEQ item.

Discussion

The healthcare quality governance literature highlights variation in approaches and levels of complexity around how performance data are reviewed and prioritised by boards (Canaway *et al.*, 2017). This quality improvement project offers an addition to the literature by demonstrating an actionable approach that healthcare boards can implement to effectively govern for quality. This study implements the "Picture-Understanding-Action" approach at a health system board level (Martin *et al.*, 2021). This approach facilitated the national HSE directorate to develop a quality agenda item which was then handed over to the newly appointed board of directors, who continue to use and evolve the approach three years later. The approach proved useful in developing a "Picture" of quality which facilitated greater insight and "Understanding" of the quality of care, and guided "Action". The time allocated to discussing quality on board agendas is considered important in the literature. The application of the "Picture-Understanding-Action" at board level resulted in the prioritisation and allocation of sufficient time to quality discussions in directorate meetings.

The co-design approach aims to utilise the knowledge, skills and experience of all stakeholders, which leads to the development of a greater understanding, engagement and ownership of processes (Ward *et al.*, 2018). Previous literature suggests that healthcare boards should be involved in choosing the quality metrics they will monitor (Scott, 2015). In addition, co-design also facilitates combining service user insights with in-house professionals' knowledge leading to better outcomes for service users. This project demonstrated the benefits of co-design where directors were directly engaged in identifying measures of quality for the quality profile and in selecting and testing new approaches to understanding PEQ.

Robust data is an enabler of "Action". Establishing system-wide measures and standards for patient care quality enables boards to adopt action plans directed at improving system performance (Prybil *et al.*, 2013). However, most board level quality dashboards use traffic light coding or short-term trend data which does not distinguish between common and special cause variation, often leading the boards into unnecessary discussions on "noise" within the process (Brown, 2019). This can be a major challenge for healthcare boards. The HSE directorate quality agenda item project used a robust SPC methodology to display data over time and differentiate common and special cause variation, with supplemental text to support interpretation of charts to keep the discussion focussed on actual signals. This project effectively converted data into information for the use of the HSE directorate. However, this new information led to some concern about the separate but similar roles of overseeing quality and managing performance of the system. Therefore, it is important to clearly outline the different roles, responsibilities and interaction between governance and management functions (Flynn and Brennan, 2020).

Since board members are ultimately responsible for the quality of care, it is imperative that they have a good "Understanding" of quality and are supported by robust governance systems and processes (Smith *et al.*, 2021). A major challenge to effective board oversight of healthcare quality is the limited knowledge of board members on the contemporary and emerging trends in data and patient safety which means that they cannot pose critical questions while discussing quality (Mannion *et al.*, 2016). Studies have suggested that training on Lean, Six Sigma and benchmarking should be included in continuing education for board members (Scott, 2015). An SPC educational intervention for healthcare board members demonstrated a reduction in the time lost by boards in discussing insignificant changes in data as they were able to clearly focus on issues that required attention (Riley *et al.*, 2021). In this study, directors were provided with an introduction to SPC methods at the start of the project, just-in-time SPC training during the meetings and were offered 1-1 sessions with a QI facilitator. This enabled the directors to develop a clearer "Understanding" of the data. Many of the directors were previously unaware of SPC methodology and greatly appreciated this aspect of the project.

To engage in a true dialogue about quality of care, boards should be interested in the story behind the numbers rather than just looking at the indicators (Oerlemans *et al.*, 2018). In this project, the inclusion of PEQ in meetings grounded quality discussions in the lived experiences of those who use and work in healthcare. The directors trialled various methods of integrating people's experiences into their agenda helping to "people-ise" the data.

Limitations

A challenge of this QI approach is the time and resource commitment required from the project team and the directors themselves. This may impact organisations' willingness to commit to it due to competing responsibilities and complex scheduling. While there is evidence (Millar *et al.*, 2013; Botje *et al.*, 2014) that demonstrates a relationship between boards engaged with quality of care and improved quality outcomes, it was not possible within this project to observe a cause-and-effect relationship between the quality agenda item, actions taken at board level and improvement in quality and safety of care. Additionally, the project team who only attended part of the meeting, could not observe all actions taken by the directors inspired by the centrality of quality in the meeting agenda, although feedback from directors indicated that the quality agenda item had influence throughout the meeting and in their daily leadership roles.

Conclusion

This paper presents an application of the "Picture-Understanding-Action" quality improvement approach to implementing new processes to support board level oversight of quality and its improvement (Martin *et al.*, 2021). The project prioritised and formalised attention on quality and its improvement and established a rigorous approach to national oversight of quality in the Irish healthcare system. The quality agenda item was developed to include two complementary and equally important views (the picture) of quality of care: a quality profile and "People's Experience of Quality". The quality profile presented the critical few indicators across seven domains of quality (safe, effective, person-centred, timely, efficient and equitable and better health and well-being), analysed using SPC, which provided a robust approach to demonstrating performance over time and across services and distinguishing signal from noise.

The "People's Experience of Quality" brought the experiences of patients, staff, service users, carers and families in the health system into the board room and grounded the directors in the real impact of healthcare on people's lives.

The project provided directors with the skills and a systematic approach to look at and evaluate the data (understanding). Utilising co-design and PDSA cycles proved key to enabling directors to inform, test and refine the development a quality agenda item fit for their purposes and that of the incoming board (action). These approaches also enhanced buy in and adoption of this approach.

The "Picture-Understanding-Action" approach applied here has proved its usefulness in supporting boards to oversee quality more effectively at a national level. Understandingly, this is an ongoing process and healthcare boards should continue to evaluate their own practices and strive to adopt those that will enhance the accountability of the board itself. In addition, part of ensuring the sustainability of the "Picture-Understanding-Action" approach for boards will include periodic revision of the selection of indicators included in the quality profile, so that focus is placed on the most relevant patient safety issues as circumstances and organisational priorities evolve. This has been seen in Ireland where the HSE board through its Safety and Quality Committee conducts an annual workshop to review the contents of the quality profile and to reflect on the agenda item.

The SPC analysis provided national directors with a clear picture of performance of the system over time and across services. SPC is a valuable tool for decision making, not just at board level but across healthcare and we recommend consideration of its use at all levels. In Ireland, work is currently commencing to incorporate SPC within performance management to complement its use in board level assurance.

Further evolution of this approach may focus on further integrating the "psychology of change" into the quality governance process and thinking about additional steps boards can take to engage with stakeholders in the system such as patients, service users, families and staff. Additionally, there is an opportunity for future research to focus on actions taken by healthcare boards based on the quality data presented. The logical next step should be to embed this approach not only at board level but also throughout the healthcare system and assessing the impact on outcomes.

We offer this project as an example of an actionable approach that healthcare boards or managers can implement to improve their processes in overseeing and governing or managing quality, respectively.

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Appendix

Appendix for this article can be found online.

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