

Get Published in Quality Improvement (QI): An Interactive Guide with an Editor's Inside View

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Disclosure



Drs. Brady, Garber, Gupta, Kemper and Rutman

Have documented no financial relationships to disclose or Conflicts of Interest (COIs) to resolve.

Welcome & Introductions



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Your QI Experience



Have you:

- Participated in QI?
- Led a QI initiative?
- Published a QI manuscript?



Objectives



1. Critically assess the SQUIRE 2.0 guidelines with a specific focus on problem description, rationale, context and the intervention; unique elements that are key to writing and successfully publishing QI manuscripts.
2. Directly apply the SQUIRE 2.0 guidelines in a novel “Write, Pair, Share” exercise based on participants own QI projects or from an example QI project provided.
3. Discuss common errors and pitfalls of QI manuscripts using real examples from the QI literature and apply advice in an interactive question and answer session with journal editors.

Why Publishing QI is Important



- Many opportunities for improvement in healthcare
- Healthcare providers work to improve care each day
- Majority of improvements are not shared in literature leading to:
 - Missed opportunities to learn
 - Repeating of same mistakes
 - *Too little academic credit for improvers!*

SQUIRE 2.0



RESEARCH AND REPORTING METHODOLOGY



OPEN ACCESS

SQUIRE 2.0 (*Standards for Quality Improvement Reporting Excellence*): revised publication guidelines from a detailed consensus process

Greg Ogrinc,^{1,2,3} Louise Davies,^{1,2,3} Daisy Goodman,^{1,2} Paul Batalden,^{2,3} Frank Davidoff,³ David Stevens^{3,4}

For numbered affiliations see end of article.

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This paper is being co-published in: *American Journal of Critical Care*, *American Journal of Medical Quality*, *Canadian Journal of Diabetes*, *Journal of Continuing Education in Nursing*

ABSTRACT

Since the publication of Standards for Quality Improvement Reporting Excellence (SQUIRE 1.0) guidelines in 2008, the science of the field has advanced considerably. In this manuscript, we describe the development of SQUIRE 2.0 and its key components. We undertook the revision between 2012 and 2015 using (1) semistructured interviews and focus groups to evaluate SQUIRE 1.0 plus feedback from an international steering group, (2) two face-to-face consensus meetings to develop interim drafts and (3) pilot testing with authors and a public

we will refer to as SQUIRE 1.0. The guidelines were developed in an effort to reduce uncertainty about the information deemed to be important in scholarly reports of healthcare improvement and to increase the completeness, precision and transparency of those reports.

In the intervening years, the reach of systematic efforts to improve the quality, safety and value of healthcare has grown. Health professionals' education worldwide now includes improvement as a standard competency.⁷⁻¹¹ The science of

SQUIRE Guideline Elements



- **Problem Description** – How to clearly define the care gap or system issue driving the QI project.
- **Rationale** – Describing the theory, evidence, or framework supporting the chosen intervention.
- **Context** – Highlighting organizational and environmental factors that shape outcomes and generalizability.
- **Intervention** – Detailing the intervention with sufficient clarity for reproducibility and learning

Problem Description



Section	Description
Problem description	Nature and significance of the local problem

Problem Description



***Start with a problem,
not an intervention.***



Problem Description: Examples



Based on mounting evidence for the use of PCT and the desire to stay current in our approach, we revised our algorithm in 2018 by incorporating PCT aiming to more accurately identify low-risk infants to safely decrease lumbar punctures (LPs) and antibiotic administration without increasing hospitalizations, ED revisits, or missed IBI.

The primary outcome measure was the proportion of infants 1–2 months of age with LPs performed. The proportion of infants 1–2 months of age who received antibiotics was a secondary outcome measure.

Problem Description: Examples



In consideration of our hospital's patient safety events, patient safety culture survey results, and focus group feedback, standardizing patient handoffs was identified as an institutional improvement priority...

Herein, we describe our quality improvement (QI) initiative to adapt, implement, and sustain I-PASS for handoff communication across various contexts at a pediatric teaching hospital. For each handoff context involved, the initial goal was that within 6 months of implementing I-PASS, 75% of handoffs would use all 5 I-PASS components.

Problem Description: Examples



In 2018, our pediatric ED noted a series of discharge-related events that underscored a need to improve our discharge process. Although most events were of low severity, they included a total of 4 preventable serious safety events (SSEs), which culminated with the return of 1 patient in critical condition after an abnormal diagnostic test result went unrecognized. This event prompted local leaders to prioritize development of a new comprehensive discharge process. The primary objective was to eliminate preventable SSEs and improve family perception of communication at time of discharge.

Problem Description: Examples



On reviewing our local data, we observed that most of our smallest infants (≤ 28 weeks' GA or birth weight ≤ 1000 g) on high-frequency jet ventilation (HFJV) were treated with opiates or benzodiazepines. We noted that the baseline cumulative morphine equivalent exposure in our cohort was 11 times greater than the cumulative morphine dose associated with decreased cerebellar brain growth.^{2,9} Furthermore, our local unit guidelines lacked standardized practices for pain and agitation assessments and indications for initiating pharmacotherapy in the HFJV population

Problem Description



Do...

- *Start with a problem.*
 - What drove this project?
 - Why did you do it now, here?
 - What was the quality gap?
- *From problem, identify aim.*
- *Identify multiple drivers that could impact that problem.*

Don't...

- *Start with an intervention.*
 - E.g., new policy or guideline
- *If your driver diagram has one real intervention, you probably didn't start with a problem.*

*It may be ok to use a QI framework to evaluate an intervention.
It just may not make for the most interesting publication.*

Rationale



Section	Description
Rationale	Informal or formal frameworks, models, concepts, and/or theories used to explain the problem, any reasons or assumptions that were used to develop the intervention and reasons why the intervention was expected to work

Rationale: Examples



Kotter's 8 Steps	Applied Examples
Step 1: Establish a sense of urgency	Highlighted the low baseline of bedside rounding to create a sense of urgency among stakeholders and institutional leaders
Step 2: Form a powerful guiding coalition	Formed a trainee-led team of fellows and residents
Step 3: Create a vision	Stakeholder mapping performed to create operational definition, SMART AIM, tests of change, and goal metrics for the project
Step 4: Communicate the vision	Vision communicated in multiple forums (e.g., e-mail, visual reminders in workspaces, educational sessions, and regular meetings)
Step 5: Empower others to act on the vision	Created a tip sheet and checklist to highlight strategies to mitigate challenges encountered on bedside rounds
Step 6: Plan for and create short-term wins	Created small wins incentive project with appreciation messages and prizes
Step 7: Consolidate improvements and produce more change	Disseminated and reviewed resident and attending surveys on perceptions of the intervention
Step 8: Institutionalize new approaches	Plan to include FCR in mandatory longitudinal faculty development

The team applied the IHI Model for Improvement and selected Dr John Kotter's "Eight Steps to Transforming Your Organization" as a change management theory to support the adoption of QI interventions

How Theory Can Help

- **Theory Can Help:**
 - Develop Interventions
 - Optimize Intervention Design
 - Identify Context for Success
 - Enhance Learning from Intervention
 - Improve Generalizability

Why Use Theory?

- **Why Use Theory?**
 - Intuition is often biased, distorted, limited in scope
 - We use theory anyway, make it formal
 - Gives reason to assumptions guiding intervention
 - Provides framework of evaluation
 - Helps to avoid rushing implementation
 - Averts Cargo Cult Science



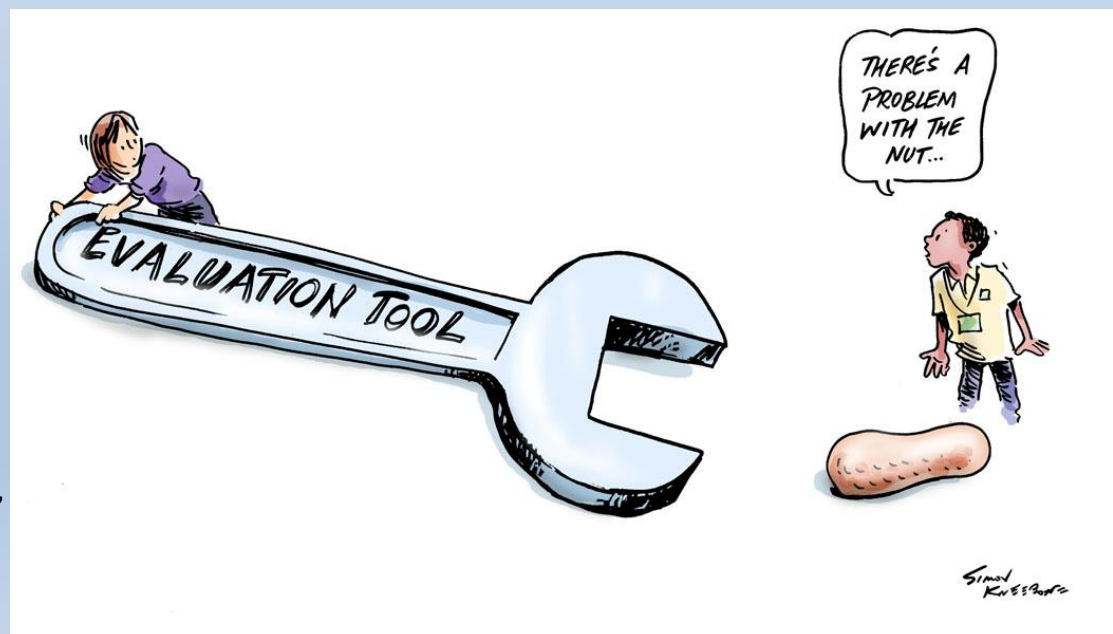
Davidoff et al, BMJ Qual
Saf 2015;24:228-238



Changing
Health Care
for Good.®

Evaluation of Healthcare Initiatives

- **Evaluation**
 - Don't ask "Does it work?"
 - Ask "How and in what context does it work?"



Gareth J. Parry, PhD; Andrew Carson-Stevens, MBBCh, MPhil; Donna F. Luff, PhD; Marianne E. McPherson, PhD, MS; Donald A. Goldmann, MD. Recommendations for Evaluation of Health Care Improvement Initiatives. ACADEMIC PEDIATRICS 2013;13:S23–S30

Context



Section	Description
Context	Contextual elements considered important at the outset of introducing the intervention

Context Conceptual Models

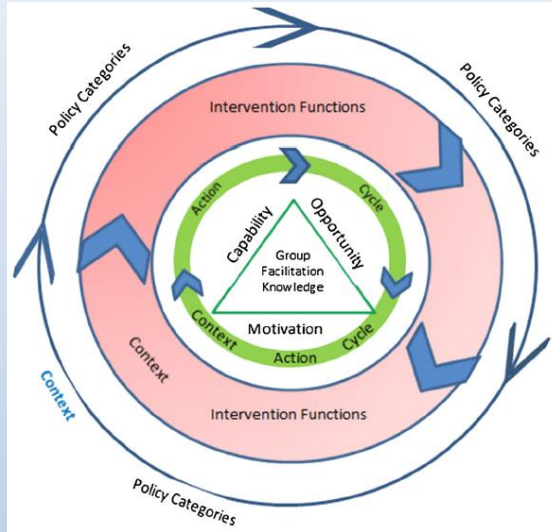


Figure 8: Organising for quality in healthcare: the six universal challenges*

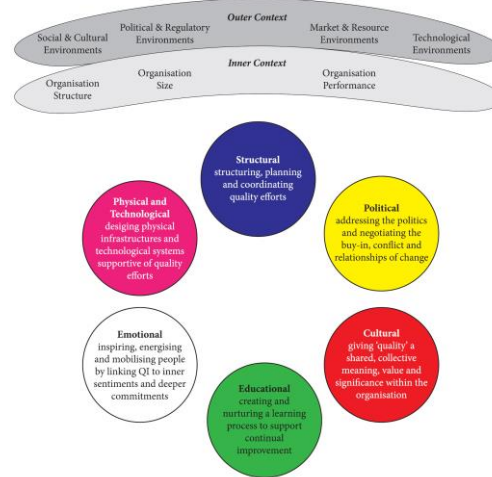
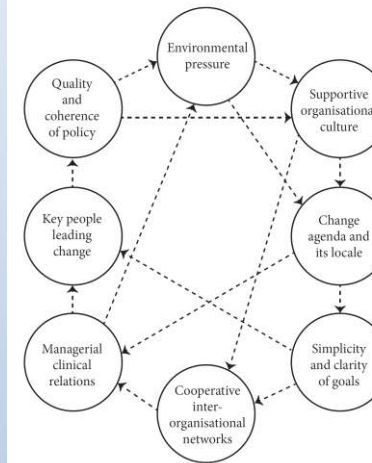
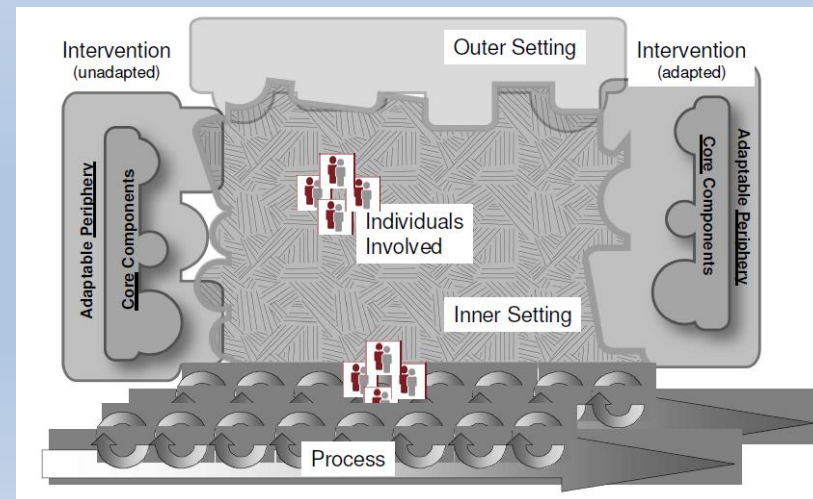
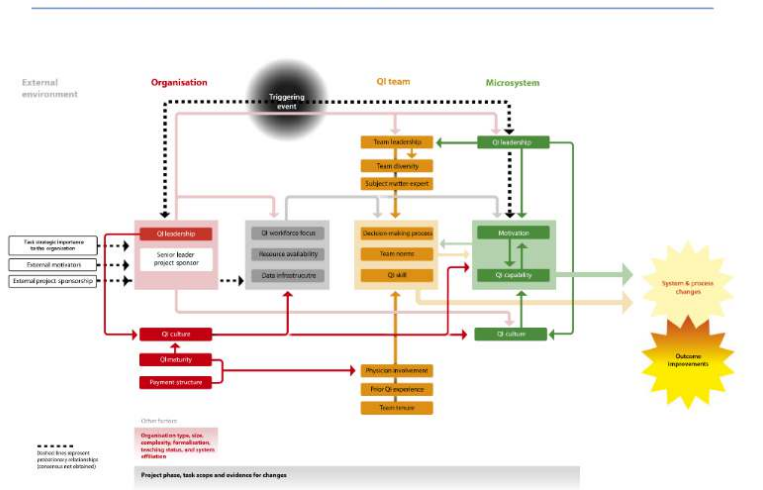


Figure 6: Receptive contexts for change: the eight factors²⁴



MUSIQ: Model for Understanding Success in Quality



Context



Typical “minimum” requirements:

- Location, patient population, size, staffing, practice type, teaching status, system affiliation and relevant processes already in place at start of the intervention
- Impetus for change and leadership climate

“Context is everything that isn’t the intervention”

Context

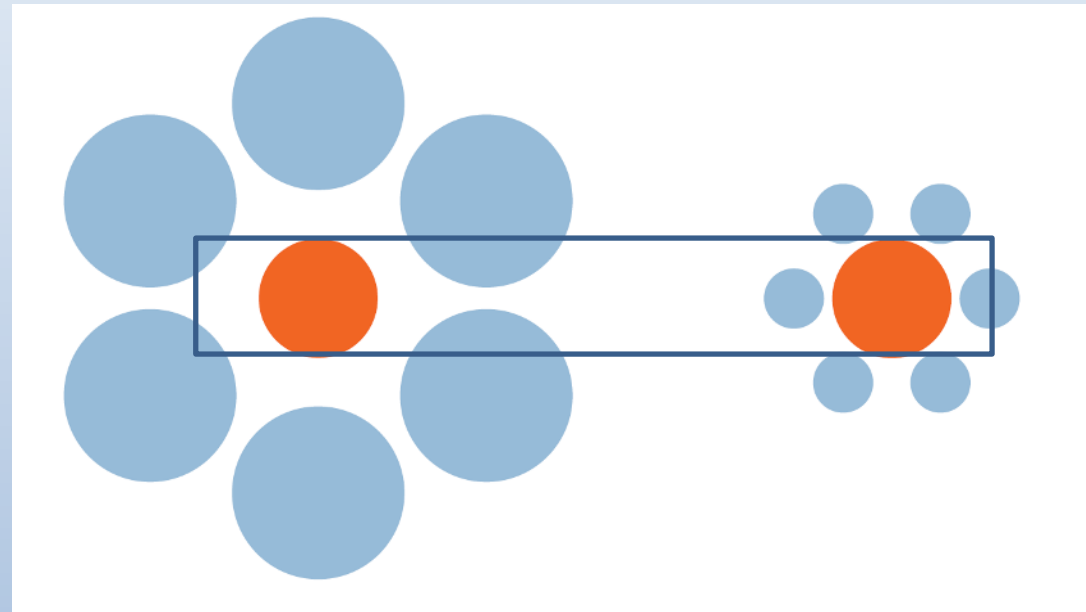


“Context is everything that isn’t the intervention”

Where context appears in SQUIRE 2.0:

- Methods: Describe the *contextual factors* that authors considered important at the outset of the improvement initiative (a priori)
- Results: Data about how *contextual factors* interacted with the interventions
- Discussion: Implications of the findings regarding *context* both to success of the intervention and generalizability of the intervention

The Ebbinghaus Illusion



Which orange circle appears larger?

Context



QI Intervention X in Setting A  Outcome: 

Theory and Intervention inadequately reported; Context underreported



Setting B attempts to replicate X  Outcome: 

Context - Examples



Equity-Focused Interventions Improve Interpreter Use in the Pediatric Intensive Care Unit

Lena Oliveros, MSN, CPNP-AC,^{1,2} Hector Valdivia, MN, ARNP,^{1,2} Colin Crook, DNP, ARNP-CS,³ Lori Rutman, MD, MPH,^{4,5} Surabhi Vora, MD, MPH,^{3,4} Dwight Barry, PhD,¹ Lauren Rakes, MD^{4,6}

METHODS

Context

This QI study was conducted in the 38-bed PICU of Seattle Children's Hospital, a tertiary-care, university-affiliated, 407 licensed-bed pediatric hospital. The PICU occupies 2 hospital floors. The hospital's QI structure includes unit-specific microsystem teams comprising a physician-nurse dyad, QI consultant, and data analyst. The PICU microsystem team was established in 2018 and includes PICU providers, nurses, a pharmacist, a physical therapist, and a family advisor. The family advisor comes from this institution's Family Advisor Program, which comprises caregivers/parents of patients who receive care here. Their input helps guide our decisions that might change care. For this project, the microsystem team also received consultation from the hospital's Language Services team.

Oliveros L, Valdivia H, Crook C, Rutman L, Vora S, Barry D, Rakes L. Equity-Focused Interventions Improve Interpreter Use in the Pediatric Intensive Care Unit. *Pediatrics*. 2025 Jan 1;155(1):e2023065427. doi: 10.1542/peds.2023-065427. PMID: 39629956.

Context - Examples



Screening for Mental Health Comorbidities in a Pediatric Diabetes Clinic Setting

Alissa J. Roberts,^{1,2} Dwight Barry,² Joyce Yi-Frazier,² Lori Rutman,^{1,2} Catherine Pihoker,^{1,2} and Faisal Saleem Malik^{1,2}

Describe your practice setting and location.

Seattle Children's Hospital is a tertiary care, free-standing pediatric hospital in the U.S. Pacific Northwest that serves the largest geographic region of any children's hospital in the country. The pediatric diabetes program is staffed by 16 pediatric endocrinologists, 6 advanced practice providers, and medical trainees (i.e., endocrine fellows, pediatric residents, and medical students). The multidisciplinary team also includes 22 nurses (13 of whom are certified diabetes educators), 4 diabetes social workers, and 6 dietitians. All diabetes social workers on the team have master's-level training and are qualified to carry out psychosocial assessments, including the evaluation of patients' mental health, social status, and functional capacity within the community. In addition, all have completed required continuing education specific to suicide assessment to maintain their Washington state license and are aware of mental health resources available in the region at the community level.

The program follows >2,200 youth and young adults (up to the age of 21 years) with diabetes. The campus of Seattle Children's Hospital includes regional clinics located throughout the state of Washington. This quality improvement (QI) project was carried out at the main campus diabetes clinic located in Seattle, WA.

Roberts AJ, Barry D, Yi-Frazier J, Rutman L, Pihoker C, Malik FS. Screening for Mental Health Comorbidities in a Pediatric Diabetes Clinic Setting. *Clin Diabetes*. 2021 Jan;39(1):97-101. doi: 10.2337/cd20-0037. PMID: 33551559; PMCID: PMC7839615.

Context - Examples



Improving Time to First Feeding for Preterm Infants: A Quality Improvement Approach

Molly F. May, DNP, MSN, CRNP†‡; Melissa L. McKinney, MSN, CRNP†; Danielle Cestare, MPH*; Alicia Hussey, MSN, RN, NE-BC†; Alvaro Barboza Zevallos, MPH*§; Samuel Garber, MD*†; Michael A. Posencheg, MD*§¶; Karen M. Puopolo, MD, PhD*†§¶; Sagori Mukhopadhyay, MD*†§¶*

METHODS

Study Setting

We conducted this project at Pennsylvania Hospital, a Magnet-certified urban tertiary-care center in Philadelphia, Pennsylvania, part of the University of Pennsylvania Health System. The hospital serves as the largest maternity center in the city, with ~5,000 annual deliveries and a 50-bed level III NICU. Neonatal care is provided by physicians, neonatal nurse practitioners, and physician assistants. Pasteurized donor human milk (PDHM) is offered to all NICU families as an alternate feeding when MOM is unavailable and used with the family's assent.

May MF, McKinney ML, Cestare D, Hussey A, Zevallos AB, Garber S, Posencheg MA, Puopolo KM, Mukhopadhyay S. Improving Time to First Feeding for Preterm Infants: A Quality Improvement Approach. *Pediatr Qual Saf.* 2025 Feb 20;10(2):e798. doi: 10.1097/pq9.0000000000000798. PMID: 39980492; PMCID: PMC11841844.

Context



 ChatGPT

what are the top 3 reasons why context is important to quality improvement projects?

The top three reasons why context is important to quality improvement (QI) projects are:

1. **Tailoring Solutions to the Environment:** Every organization has unique challenges, resources, culture, and workflows. Understanding the context allows for the design of solutions that are specific to the needs and circumstances of the organization. This increases the chances of success, as a one-size-fits-all approach might not address the underlying issues effectively.
2. **Ensuring Stakeholder Buy-in and Engagement:** Stakeholders, including staff, management, and patients, play a crucial role in QI projects. Understanding the context helps in identifying what motivates these stakeholders, their concerns, and how to engage them in the improvement process. This engagement is critical for sustaining changes and making the project successful.
3. **Overcoming Barriers and Leveraging Opportunities:** Context helps in recognizing potential barriers (such as resource limitations or organizational resistance) and opportunities (like existing strengths or favorable conditions). By factoring in these elements, QI teams can proactively address obstacles and maximize available opportunities, improving the likelihood of achieving lasting improvements.

By taking context into account, QI projects are more likely to be effective, relevant, and sustainable.

Interventions



Section	Description
Intervention	<ul style="list-style-type: none">-Description of the intervention in sufficient detail so others can reproduce it-Specifics of the team involved

How good are we at doing PDSA cycles?

SYSTEMATIC REVIEW



Systematic review of the application of the plan–do–study–act method to improve quality in healthcare

Michael J Taylor,^{1,2} Chris McNicholas,² Chris Nicolay,¹ Ara Darzi,¹ Derek Bell,² Julie E Reed²

Results 73 of 409 individual articles identified met the inclusion criteria. Of the 73 articles, 47 documented PDSA cycles in sufficient detail for full analysis against the whole framework. Many of these studies reported application of the PDSA method that failed to accord with primary features of the method. Less than 20% (14/73) fully documented the application of a sequence of iterative cycles. Furthermore, a lack of adherence to the notion of small-scale change is apparent and only 15% (7/47) reported the use of quantitative data at monthly or more frequent data intervals to inform progression of cycles.

Found 73 articles

Only 14 showed a sequence of cycles

Only 7 reported use of monthly data

- Take home: doing QI well, with discipline, is really hard
- And this is what is published!
- Tables/figures can be great ways to show details of PDSAs

Intervention - Examples



RESEARCH ARTICLE

Quality Improvement to Identify and Address Food Insecurity During Pediatric Hospitalizations

Cristin Q. Fritz, MD, MPH,^{a,b} Gabrielle C. Lyons,^b Amber R. Monaghan, RN, MSN, CPN,^a Joseph R. Starnes, MD, MPH,^a Sarah Hart, MSN, APRN, CPNP-AC,^a Caroline B. Khanna,^b David P. Johnson, MD^{a,b}

PDSA Cycle	Date	Description	Lessons Learned
Initial PDSA cycle	February 2021	FI screening was performed by ADT nurses caring for PHM patients on the PMAC.	Implementing FI screening within an established nursing workflow allowed for rapid introduction of the process.
		ADTs placed completed forms in central location to be picked up daily by residents rotating on the PHM service.	Requiring handoffs of a paper screening form was an unreliable process.
		For positive screens, residents inserted food resource information into AVS using a SmartPhrase and placed an SW consult for high-risk screens.	Frequent turnover of residents on PHM service led to unreliable form pickup. A SmartPhrase for resource provision was convenient, but still relied on the discharging provider's recognition of a positive FI screen and knowledge of the screening process.
Bedside nurse screening expansion	November 2021	FI screening was performed by PMAC bedside nurses in addition to ADT nurses, expanding the reach of screening.	ADT nurses who were already familiar with the process were able to coach and support bedside nurses as they were introduced to the process.
Standardization of form pickup	January 2022	FI screening forms were picked up daily, Monday–Friday, by a designated PHM advanced practice nurse.	Consistency of form pickup responsibility created a more reliable process.

Intervention - Examples



Reducing Racial Disparities in Caregiver Presence During Family-Centered Rounds

Margaret S. Ridge, MD,¹ Courtney A. Gilliam, MD,^{1,2} Caroline Maguire, MD,¹ Carey Heekin, RN,¹ Conique Larbie, Rolanda Clark, MEd, Andrew F. Beck, MD, MPH,^{1,2,3,4,5,6} Nddi Unaka, MD, Med,⁷ Patrick W. Brady, MD, MSc^{1,2,5}

Intervention	Cycle 1	Cycle 2	Cycle 3
Clinician Education September 19, 2023, to December 8, 2024	<ul style="list-style-type: none"> Provided overview of problem, project goals through HM division meetings, nursing staff meetings, and newsletters. Well received. General buy-in to goal and work proposed. Adopted¹⁵—continued quarterly divisional updates for ongoing engagement. 	<ul style="list-style-type: none"> Updated board in residents' common education space with improvement initiative SMARTIE aim, PDSA findings and progress. Key drivers, sFMEA, and run charts included. Served as passive way for all residents to be aware of ongoing work. Adopted—continued monthly updates throughout length of project. 	<ul style="list-style-type: none"> Made brief announcement in residents' monthly HM meeting with brief project overview and outlining active interventions. Assisted with educating residents without recent exposure to project or interventions to allow for engagement and participation. Attending and resident workstation reminders to call and complete MyRounds documentation (January 8, 2024) Sent weekly emails to attendings, fellows, and APPs on service with project overview and reminder to call caregivers. Adopted—continue throughout length of project and during sustaining period.

Intervention	Cycle 1	Cycle 2	Cycle 3
Clinician Education September 19, 2023, to December 8, 2024	<ul style="list-style-type: none"> Provided overview of problem, project goals through HM division meetings, nursing staff meetings, and newsletters. Well received. General buy-in to goal and work proposed. Adopted¹⁵—continued quarterly divisional updates for ongoing engagement. 	<ul style="list-style-type: none"> Updated board in residents' common education space with improvement initiative SMARTIE aim, PDSA findings and progress. Key drivers, sFMEA, and run charts included. Served as passive way for all residents to be aware of ongoing work. Adopted—continued monthly updates throughout length of project. 	<ul style="list-style-type: none"> Made brief announcement in residents' monthly HM meeting with brief project overview and outlining active interventions. Assisted with educating residents without recent exposure to project or interventions to allow for engagement and participation. Attending and resident workstation reminders to call and complete MyRounds documentation (January 8, 2024) Sent weekly emails to attendings, fellows, and APPs on service with project overview and reminder to call caregivers. Adopted—continue throughout length of project and during sustaining period.
Resident Education with Caregivers November 1, 2023, to February 1, 2024	<ul style="list-style-type: none"> Created initial draft for letters to discuss PDSA definition and problem with caregivers on admission. Difficult performing during overnight shifts. Residents required alternative way to deliver information. Adopted¹⁵—education and/or call after 1 week and revised draft form for residents to complete. 	<ul style="list-style-type: none"> Form finalized to caregivers and delivery of education and goals of PDSA outlined performance around PDSA process. November 5, 2023 One resident, clinical responsibility was directly over distribution and collection of this form. Unable to complete through one meeting process. Adopted—education form after 1 week and revised draft document. 	<ul style="list-style-type: none"> Revised initial PDSA document with caregivers on admission around PDSA definition and goals, process, performance, including items to be avoided on phone and continuing phone number. Revised PDSA language related to document distribution, incorporation, and use of completed language was used for with resident completion of the form. December 21, 2023 Use of completed language was used for with resident completion of the form. Adopted.
Calling of Caregivers During PDSA November 1, 2023, to December 8, 2024	<ul style="list-style-type: none"> All HM were alerted to call any caregiver on arrival of resident and offer opportunity to join. Resident assessed for bedside reorientation to call. Questions about how to approach form with additional patients. Adopted—continue being on near-constant HM calls. 	<ul style="list-style-type: none"> Continued to make calling caregivers not required or include on required process during PDSA implementation with utilization of calls as frame structure to reorientation to call engagement and participation. Adopted—continued being on all near-constant HM calls. 	<ul style="list-style-type: none"> Continued use of PDSA process. Adopted.
MyRounds Update December 21, 2023, to January 1, 2024	<ul style="list-style-type: none"> Added 2 questions to previously added section for APP to learn to have early involvement in ongoing care of resident at bedside, despite their number to call caregivers not present. Added reminder time to rounds when called for patient resident member to be responsible for calls. Allowed for improved assessment during PDSA. Adopted—added to all HM forms. 	<ul style="list-style-type: none"> Continued use of PDSA process. Added questions without attention to identified barriers with performance of PDSA in addition to the form. Adopted. 	<ul style="list-style-type: none"> Continued use of PDSA process. Adopted.

Intervention - Examples



RESEARCH ARTICLE

A Trainee-Led Quality Improvement Project Using Change Management Theory to Improve Bedside Rounding

Kim Tran Lopez, DO,^{a,b*} Katherine Pumphrey, MD, MHA,^{a,b*} Jessica Hart, MD, MHQS,^{a,b} Preston Simmons, MD,^c Colin Crilly, MD,^c Jeremy Jones, MD,^c Joshua Kurtz, MD,^c Sophie Lieberman, MD,^c Elizabeth Kuhn, MD,^c Erin Flynn, MD,^c Huseina Abbas, BS,^c Sarah Williamson, BS,^c Arleen Juca, BS,^c Kristin Maletsky, MD, MSED^{a,b}

PDSA Cycle	Description	Action (Adapt, Adopt, Abandon)
PDSA 1: Presentation at Division of General Pediatrics quality improvement meeting	Presented baseline data Shared results from needs assessments and focus groups conducted with residents, faculty, Family Advisory Council, and Youth Advisory Council Introduced an operational definition of FCR	Adopt
PDSA 2: Communication bundle	E-mail communication sent to residents and attendings before service weeks that included FCR operational definition, tip sheet, and option to defer pre-rounding on eligible patients Recruited CTAs to provide in-person reminders for bedside rounding	Adopt
PDSA 3: Presentation at the Section of Hospital Medicine monthly meeting	Presented updates and encouraged bedside rounds for all teams Early adopters shared experiences with successful bedside rounding practices	Adopt

PDSA Cycle	Description	Action (Adapt, Adopt, Abandon)
PDSA 1: Presentation at Division of General Pediatrics quality improvement meeting	Presented baseline data Shared results from needs assessments and focus groups conducted with residents, faculty, Family Advisory Council, and Youth Advisory Council Introduced an operational definition of FCR	Adopt
PDSA 2: Communication bundle	E-mail communication sent to residents and attendings before service weeks that included FCR operational definition, tip sheet, and option to defer pre-rounding on eligible patients Recruited CTAs to provide in-person reminders for bedside rounding	Adopt
PDSA 3: Presentation at the Section of Hospital Medicine monthly meeting	Presented updates and encouraged bedside rounds for all teams Early adopters shared experiences with successful bedside rounding practices	Adopt
PDSA 4: Nursing intervention	Identified nursing stakeholders on the other side of the patient Shared FCR information with them and asked them to provide feedback during the 2-month period	Adopt (nursing stakeholders did not receive nursing education)
PDSA 5: Survey to additional team	Surveyed the operations management team to see if additional team members were interested in bedside rounding education	Adopt
PDSA 6: FCR rollout	Implemented FCR rollout on rounds	Adopt (nursing staff did not receive education)
PDSA 7: Family engagement	Presented an FCR poster to address patient and family engagement	Adopt (nursing staff did not receive education)
PDSA 8: Resident education	Presented FCR tool rounding practice during team rounds	Adopt
PDSA 9: Presentation at the Section of Hospital Medicine monthly meeting	Presented updates to the other side of the patient and shared experiences with successful bedside rounding practices	Adopt
PDSA 10: Survey to remaining teams	Surveyed remaining teams to see if they were interested in bedside rounding education	Adopt
PDSA 11: Medical student education	Presented a quality improvement workshop to medical students	Adopt
PDSA 12: Staff survey results report	Shared survey results with residents to inform bedside rounding	Adopt

Write-Pair-Share



- Think about a current/past/planned QI project
(No project? No problem! Use the example provided or make one up)
- Write the Project Title and SMART Aim
 - Specific, Measurable, Attainable, Relevant, Timely
- Choose Problem Description, Rationale, Context OR Intervention

WRITE-Pair-Share



- Spend 10 minutes writing independently
 - Problem Description: Nature and significance of the local problem
 - Rationale: Describe informal or formal frameworks, models, concepts, and/or theories used to explain the problem, any reasons or assumptions that were used to develop the intervention and reasons why the intervention was expected to work
 - Context: Describe contextual elements considered important at the outset of introducing the intervention (setting and culture)
- Be prepared to swap computers/papers with a partner (pair), review each other's writing and share immediate feedback (share)!

Write-PAIR-Share

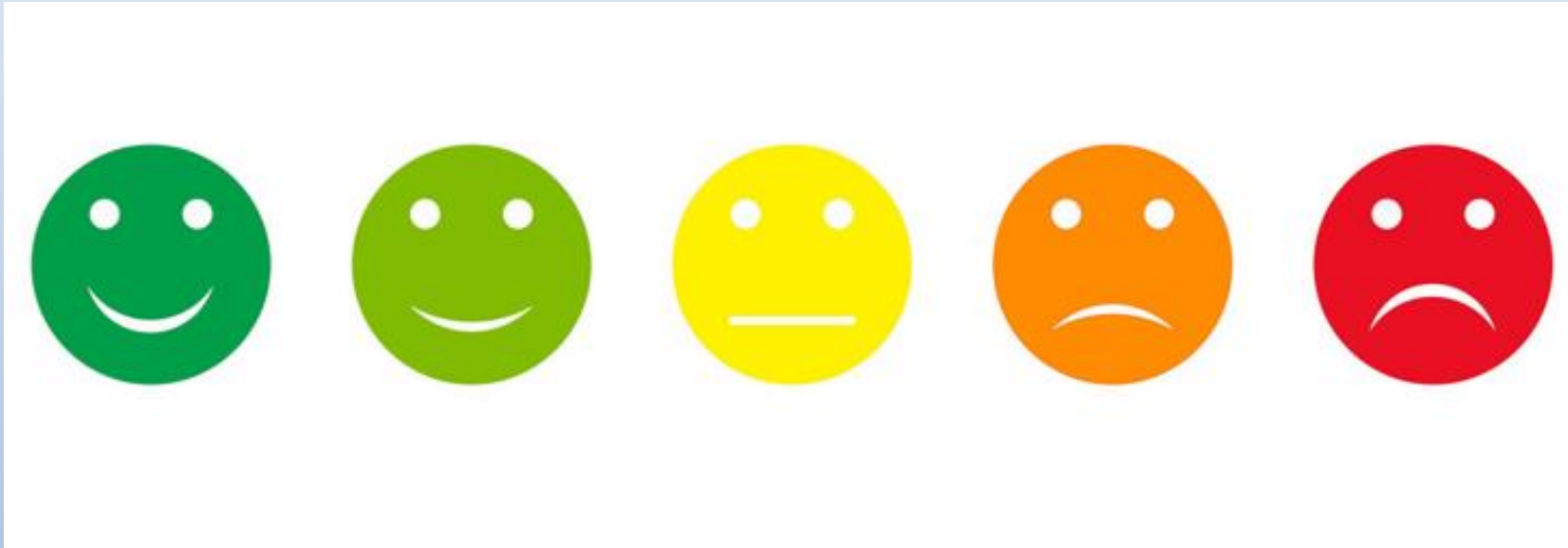


- Trade computers with someone nearby (choose someone you don't know!)
- Take 5 minutes to review **Problem Description**, **Rationale**, **Context**, or **Intervention** (use track changes/comments):
 - Do you understand why the problem was important at this particular time and location?
 - Is the rationale sensible to the general reader? Can you understand why these interventions were thought to work at this particular location and time?
 - How well is the initial context of the work described? Are specific elements of the context recognized by the author? Is their relevance made apparent to the general reader?
 - Could you reproduce this work in your own context based on the description?

Write-Pair-SHARE



- Take 5 minutes to review your feedback with your partner



Exercise reflection



- How did it feel to spend 10 minutes writing?
- How did it feel to get immediate feedback (from a stranger)?
- Does this motivate you to write more?

Getting to Publication



1. Minimum elements for QI publications
2. Some thoughts on IRB
3. Practical tips and pitfalls

“Minimum” elements



1. Clear problem and aim
2. Appropriate description of context
3. Clear measures with operational definitions
4. Clear interventions (ideally tested with PDSAs)
5. Some theory of knowledge linking interventions to aim
6. Analysis of data over time

But we can do better...

“Better” elements

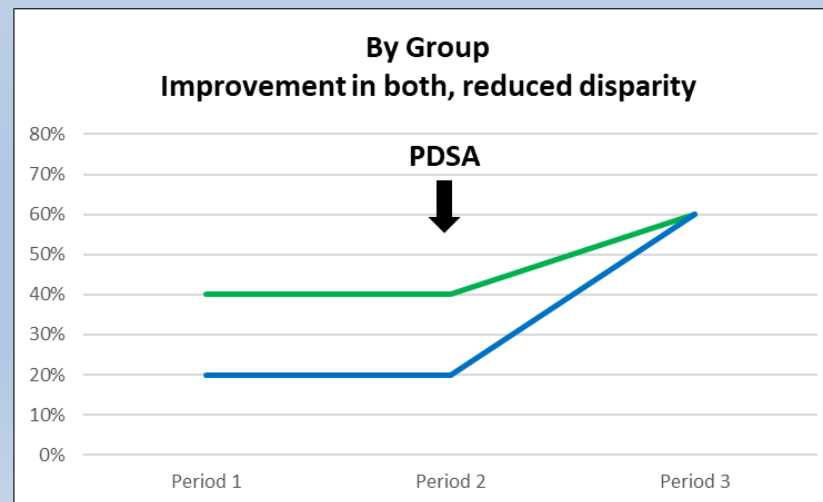
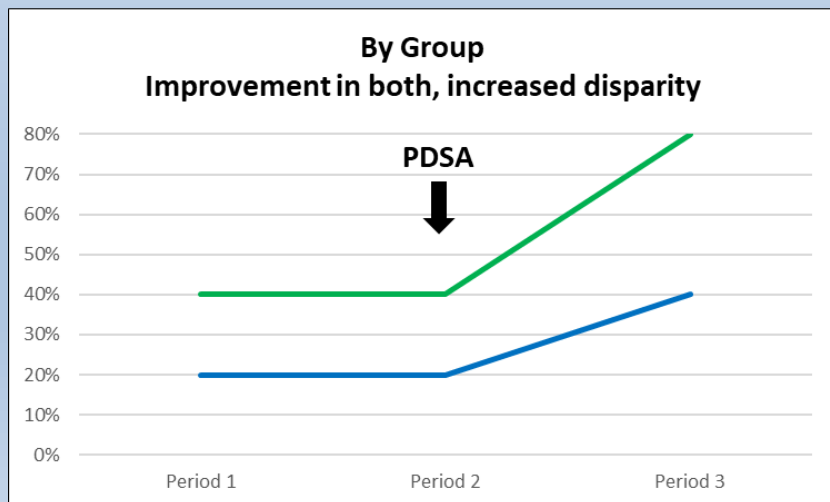
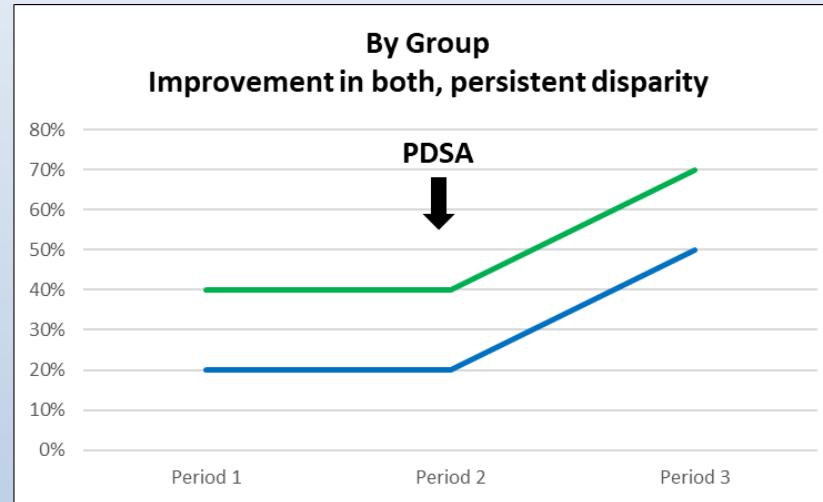
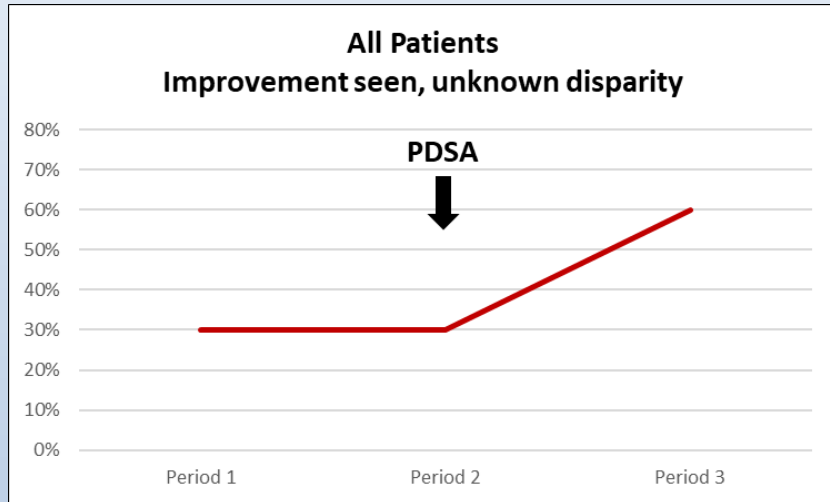


1. Have a legitimate aim – start with problem, not intervention.
2. Choose a problem that matters!
3. Spend some time understanding current state.
4. Best QI is usually iterative - not one intervention.
5. Use time-series data analysis well (prospectively!).
6. Think about sustainability.
7. Have a comparison group (maybe).
8. Think about equity and disparities (stratify your data).

Equity-Focused QI



Potential Impacts of Hypothetical QI Project on Disparities



Adapted from:

Reichman et al, "Using Rising Tides to Lift All Boats: Equity-Focused QI as a Tool To Reduce Neonatal Health Disparities", Seminars in Fetal and Neonatal Medicine, 2021.

Lion et al, "All Quality Improvement is Health Equity Work: Designing Improvement to Reduce Disparities", Pediatrics, 2022.

Questions/Discussion



Preparing QI for Publication



- Do not save the writing process for the end of the QI project
- Take advantage of all opportunities to present and get critical feedback
- Think about IRB or other appropriate review
- Identify the authorship group early on
- Keep track of the rich contextual data
- Document your metrics and how you will assess progress
- Record the timing of interventions and the rationale for the order
- Carefully document progress and any changes to the project
- Remember that it will take longer to write up your work than you suspect
- Do not be deterred by rejection, but incorporate the lessons that you learn along the way.

Top 10 QI Manuscript Pitfalls



10. Poor writing or organization
9. Insufficient contextual information
8. No clear “so what”
7. The lack of a clear SMART aim
6. Unclear definition of metrics (numerator and denominator)
5. Faulty analysis, such as a pre-post assessment
4. Incompletely annotated control charts
3. Too much spin
2. Limited time period
1. Not actually a QI project

PAS Meeting

- **The PAS meeting is full of great QI content including our workshop later today at 4 pm**

Evaluate Session

