

Abstract

Quality improvement (QI) efforts in healthcare often struggle post-implementation, known as the "improvement evaporation effect." Traditional QI approaches yield mixed outcomes, with many failing within a year, and top-down strategies are often perceived as burdensome by physicians. This study addresses the gap in effective, physician-driven QI processes. By focusing on physician-led initiatives, this research aims to enhance the sustainability and effectiveness of QI efforts using strengths-based methodologies like Appreciative Inquiry (AI). Our approach followed AI, which involves identifying real-world examples experienced by practitioners. AI includes four phases: Discover (learning about 'the best of what is'), Dream (envisioning possibilities), Design (identifying actions), and Destiny (sustaining future actions). We conducted 1.5-hour group interviews using semi-structured guides adapted to our research question and participants' context. Conducted in three phases, Phase 1 involved identifying improvement areas and positive practices through physicians' best moments in medicine and their reactions to changes. Phase 2 used Appreciative Inquiry to advocate for what already works well for physicians. Phase 3 included evaluations using the ReAIM framework, with 6- and 12-month follow-ups. Through the interviews we identified key supports for clinical performance improvement including: creating a safe culture for data-driven discussions, fostering comfort in discussing practice, and emphasizing informal workshops. Success enablers included AI principles, leveraging existing practices, non-evaluative physician leadership, and voluntary participation.

Introduction

Challenge of QI in Healthcare:

- Many QI initiatives fail within a year due to the **"improvement evaporation effect."**
- Top-down QI strategies** are often burdensome and unsustainable for physicians.

Objective of the Study:

- Develop **physician-driven, sustainable QI efforts** using **strength-based approaches** like **Appreciative Inquiry (AI)**.

Appreciative Inquiry (AI) Methodology:

- Discover:** Identify "the best of what is" from physicians' real-world experiences.
- Dream:** Envision new possibilities for improvement.
- Design:** Create actionable steps to implement improvements.
- Destiny:** Sustain these actions over time.

Research Design:

Three phases:

- Phase 1:** Identified improvement areas through physicians' best moments and their responses to change.
- Phase 2:** Applied AI to advocate for **what already works well**.
- Phase 3:** Evaluated outcomes using the **ReAIM framework** with 6- and 12-month follow-ups.

Key Findings:

- Essential supports for improvement:
 - Safe culture** for data-driven discussions.
 - Comfortable conversations about individual practices.
 - Informal workshops** integrated with routine work.
- Success enablers:** AI principles, leveraging existing practices, **non-evaluative leadership**, and voluntary participation.

Methodology

Study Design: AI Process (Adapted from HHS)

- Discovery** – Identify best moments in practice to uncover values and strengths.
- Dream** – Build visions for improvement based on positive experiences in key areas.
- Design** – Develop practice interventions using Plan-Do-Study-Act (PDSA) cycles.
- Destiny** – Implement strategies that align with physician values (e.g., peer-to-peer feedback).

Results

Phase 1: Needs Assessment

Key Supports Identified:

- Safe Culture:** Build trust when discussing performance and improvements using data.
- Comfortable Conversations:** Encourage open dialogue about individual practice improvement.
- Preferred Formats:** Emphasize **informal, in-person interactions** (e.g., workshops outside practice hours).

Best Moments in Medicine

Relationships were the Greatest Enabler:

- Trust and teamwork** across departments enhanced communication and coordination.
- Informal access to colleagues fostered stronger working relationships.
- These relational aspects guided the focus of practice improvement methods.

Phase 2: Pilot

Strength-Based Approach:

- Focused on **what matters to physicians and reflected on best moments** in practice.
- Used existing strengths and resources, avoiding dependency on external solutions.

Addressing Scarcity of Best Moments:

- When examples were limited, participants drew on **personal or residency experiences** to spark insights.

Key Enablers of Success:

- AI principles** integrated into existing routines (e.g., pre-existing meetings).
- Physician-led sessions** without evaluative oversight fostered trust and participation.

Voluntary participation encouraged engagement and ownership.

Phase 3: Evaluation ReAIM Framework Results

Component	Details
Reach	27 internal medicine physicians (one site)
	Participation rate: 78% (n=21)
	Sessions NOT mandatory or incentivized
	Virtual vs In-Person (Participation over 4 sessions):
Session 1	66% (14): Virtual: 42% (8)
Session 2	71% (15): Virtual: 47% (7)
Session 3	71% (15): Virtual: 47% (7)
Session 4	52% (11): Virtual: 54% (6)

Phase 1: Needs Assessment

Tools: Focus Groups (n=3), Surveys (n=6)

Insights:

- Building trust to discuss performance data is essential.
- Informal, in-person interactions are preferred for improvement discussions.

Phase 2: Pilot AI Strategy

Participants: 20 physicians

Chosen Strategy: Appreciative Inquiry (AI)

Interventions:

- Integrating feedback into handovers
- Peer-nominated "Excellence Talks"
- Case-based learning with challenging scenarios

Phase 3: Evaluation (ReAIM Framework)

Follow-up: 6 and 12 months

Analysis: Thematic analysis with input from physician teams and literature review.

Attendance Summary:

- Attended all sessions:** 23% (5)
- Attended 3 of 4 sessions:** 38% (8)
- Attended 2 of 4 sessions:** 9% (2)
- Attended only 1 session:** 38% (8)

Effectiveness

Practice Improvement Interventions (n = 3):

- Integrated feedback** into handover routines
- Nominated "Excellence Talks"** where peers recognize outstanding work
- Case-based discussions** around challenging scenarios

Engagement:

- High levels of engagement noted with peer-to-peer feedback as a primary driver.
- Facilitator's Reflection:**
 - "We are really surprised by the level of engagement."

Adoption

- Setting:** Academic hospital
- Integration:** AI-based interventions were embedded into **existing routines** and meetings to minimize disruption.

Implementation (In Progress)

- Number of Interventions Implemented:** 3
- Status:**

- Interventions remain active and are evolving based on feedback.

Success Factors:

- Sessions were **voluntary and led by a physician** without evaluative power, fostering open dialogue.

Maintenance (In Progress)

6- and 12-Month Interviews:

- Evaluating the evolution and **legacy of the interventions** over time.

Sustainability Insight:

- This AI approach starts with existing strengths, reducing reliance on external resources.

Discussion & Conclusion

Key Insights:

- Physician-driven QI efforts are more sustainable and effective than traditional top-down approaches.
- Strength-based methodologies** like Appreciative Inquiry (AI) help focus on **what already works**, reducing reliance on external solutions.

Critical Supports for Success:

- Safe, data-informed culture** promotes open discussion on performance.
- Comfortable peer-to-peer conversations** encourage continuous improvement.
- Informal workshops** integrated into routine practice enhance engagement.

Enablers of Long-Term Sustainability:

- AI principles foster **positive, collaborative change**.
- Non-evaluative physician leadership** builds trust.
- Voluntary participation** encourages genuine involvement and ownership.

Conclusion:

- This study shows that **strength-based, physician-led QI initiatives** can mitigate the "improvement evaporation effect."
- Future QI efforts should emphasize **existing strengths and relational aspects of care** to enhance sustainability.
- Follow-up evaluations at 6 and 12 months will determine the long-term impact and legacy of these interventions.

Reference

- *(1) Ziae, R., & Bologna Mba, J. S. (2017). Preparing for Continuous Quality Improvement for Healthcare: Sustainability through Functional Tree Structures (0 ed.). Productivity Press. <https://doi.org/10.1201/b17746>
- *(2) Ruhe, M. C., Bobiak, S. N., Litaker, D., Carter, C. A., Wu, L., Schroeder, C., Zyzanski, S. J., Weyer, S. M., Werner, J. J., Fry, R. E., & Stange, K. C. (2011). Appreciative Inquiry for Quality Improvement in Primary Care Practices. *Quality Management in Health Care*, 20(1), 37–48. <https://doi.org/10.1097/QMH.0b013e31820311be>
- *(3), (4) Martin, G. P., Weaver, S., Currie, G., Finn, R., & McDonald, R. (2012). Innovation sustainability in challenging health-care contexts: Embedding clinically led change in routine practice. *Health Services Management Research*, 25(4), 190–199. <https://doi.org/10.1177/0951484812474246>
- *(5) Akmal, A., Podgorodnichenko, N., Foote, J., Greatbanks, R., Stokes, T., & Gauld, R. (2021). Why is Quality Improvement so Challenging? A Viable Systems Model Perspective to Understand the Frustrations of Healthcare Quality Improvement Managers. *Health Policy*, 125(5), 658–664. <https://doi.org/10.1016/j.healthpol.2021.03.015>
- *(6) O'Donoghue, S. C., DiLibero, J., & Altman, M. (2021). Leading sustainable quality improvement. *Nursing Management*, 52(2), 42–50. <https://doi.org/10.1097/01.NUMA.0000724940.43792.86>
- *(7) Silver, S. A., McQuillan, R., Harel, Z., Weizman, A. V., Thomas, A., Nesrallah, G., Bell, C. M., Chan, C. T., & Chertow, G. M. (2016). How to Sustain Change and Support Continuous Quality Improvement. *Clinical Journal of the American Society of Nephrology*, 11(5), 916–924. <https://doi.org/10.2215/CJN.11501015>
- *(8) Akmal et al., (2021)
- *(9) Ruhe, et al., (2011)
- *(10) Glasgow, R. E., Battaglia, C., McCreight, M., Ayele, R., Maw, A. M., Fort, M. P., Holtrop, J. S., Gomes, R. N., & Rabin, B. A. (2022). Use of the reach, effectiveness, adoption, implementation, and maintenance (RE-AIM) framework to guide iterative adaptations: Applications, lessons learned, and future directions. *Frontiers in Health Services*, 2, 959565. <https://doi.org/10.3389/frhs.2022.959565>
- *(11) Robert, G., Sarre, S., Maben, J., Griffiths, P., & Chable, R. (2020). Exploring the sustainability of quality improvement interventions in healthcare organisations: A multiple methods study of the 10-year impact of the 'Productive Ward: Releasing Time to Care' programme in English acute hospitals. *BMJ Quality & Safety*, 29(1), 31–40. <https://doi.org/10.1136/bmjqs-2019-009457>