

A scalable service to improve healthcare quality through precision audit and feedback

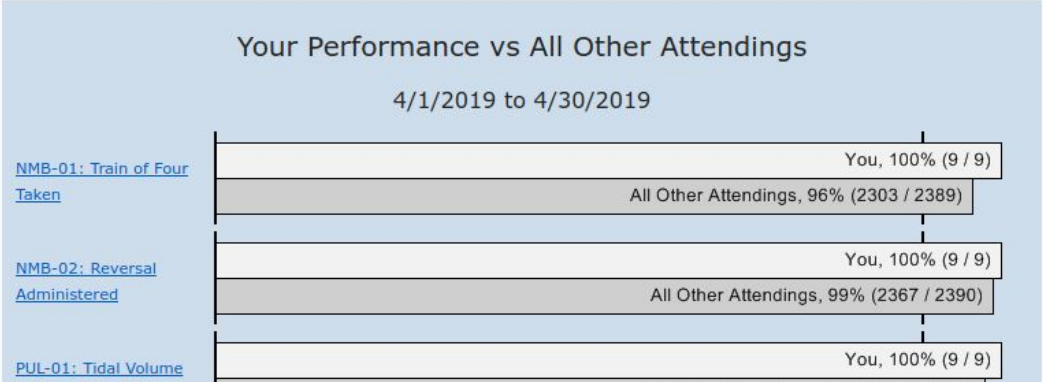
NIH National Library of Medicine, Project #1R01LM013894-01

Zach Landis-Lewis, Allison Janda, Allen Flynn, Nirav Shah

Provider feedback email from MPOG

Hello Dr. Jane,

Below is your MPOG quality performance report. For a case-by-case breakdown of any measures' result, click on the link at left to visit your quality dashboard.



Current state of email feedback

Dr Jane's question:

Is it worth my time to follow-up about this?

Problem: Performance information is

- Frequently not actionable
- Not motivating
- Not surprising



Assumptions

People are different

Context matters

Things change

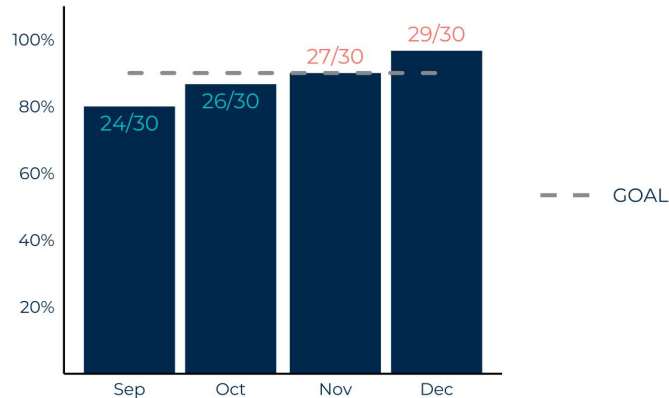
Precision feedback

- Highlight **comparisons** and **trends** that matter to providers
- Prioritize and select **high-value messages** using recipient **requirements** and **preferences**
- Enable **mass customization** of feedback interventions

Precision feedback: Example 1

Hello Dr. Jane,

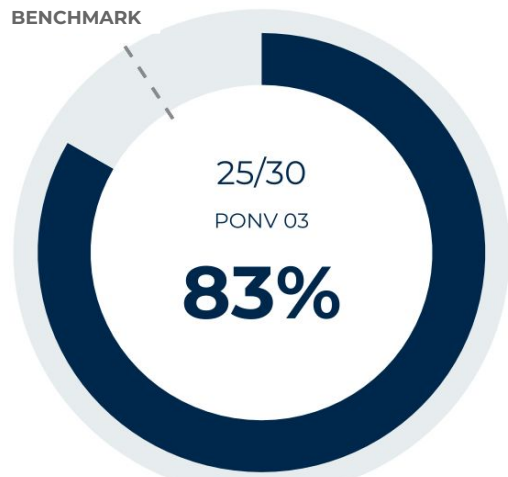
You have reached the goal for avoiding postoperative nausea and vomiting (PONV-03):



Precision feedback: Example 2

Hello Dr. Jane,

You are not a top performer for avoiding postoperative nausea and vomiting (PONV-03):



Precision feedback: Example 3 (text only)

Hello Dr. Jane,

Congrats on your high performance for avoiding postoperative nausea and vomiting (PONV-03)! You have stayed above the peer benchmark for 6 months!

Below is your MPOG quality performance report. For a case-by-case breakdown of any measures' result, click on the link at left to visit your quality dashboard.

Your Performance vs All Other Attendings

4/1/2019 to 4/30/2019

[NMB-01: Train of Four
Taken](#)

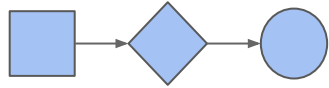
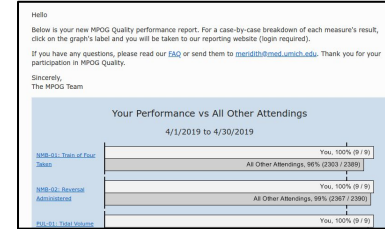
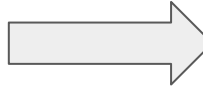
You, 100% (9 / 9)

All Other Attendings, 96% (2303 / 2389)

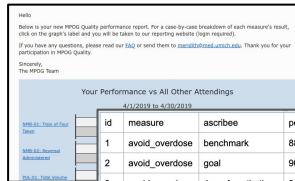


High-value message

Precision
feedback
system



How



What



Who



Where

Precision feedback R01 Aims

1. *Systematically capture recipient **requirements** and **preferences** for precision A&F messages*
2. Implement and assess a demonstration service for scalable precision A&F
3. Assess the effects of a precision A&F service on care quality and intervention engagement

Aim 1

- Mixed-methods aim that involves identifying MPOG provider **requirements (qualitative)** and **preferences (quantitative)** for precision feedback
- **Requirements** development: Human-centered design methods
- **Preferences** elicitation: Conjoint analysis survey methods

Aim 1: Requirements development

- 15-minute interviews with ~50 MPOG providers
 - Test and refine 4 prototype email messages using think-aloud
 - Brief interview question “How receptive are you to receiving emails like these and why?”
- Qualitative analysis (template editing) with coding of themes
 - Codebook development and refinement using **user stories**
 - For example: “As an attending, I want to receive email feedback that..., so that ...”

Aim 1: Preference elicitation

- Survey using pairwise comparison of prototype email messages
 - ~600 MPOG providers (expected 10% response rate)
 - using software tool 1000Minds
- Conjoint analysis to build preference weights (utilities) for email content and format attributes
- Cluster analysis to observe preference groups in provider sub-populations

Aim 1 Timeline

- Requirements development: January - July 2022
- Preferences elicitation: July - September 2022

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