

Transitioning Through Chaos: Effective Technology Optimization in Healthcare

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Introduction

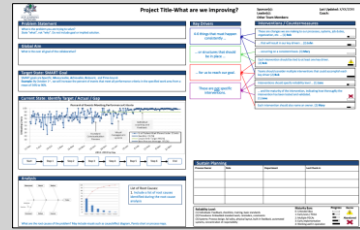
Many process improvement (PI) projects identify the need for technology, but once implemented, the expected gains are not realized. This may be because different teams own separate parts of the process: PI makes recommendation, IT team purchases software, vendor team implements software, and front-line staff are instructed to use with limited input during implementation. Implementations often lack a representative multi-disciplinary team, clear roles and responsibilities, a defined goal, or a structured process for decision making. The American College of Radiology® created the Learning Network to address healthcare delivery in the increasingly complex, multi-disciplinary healthcare environment. The network's PI education program, ImPower, has proven to be an effective way to engage software vendors, leadership, and front-line staff to optimize the interactions between people, process, and technology and create clear roles and responsibilities across multi-disciplinary processes.

Technology should be a framework that supports a process empowering staff in service of their patients.

Method

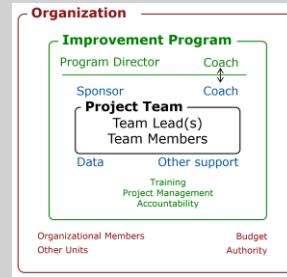
The ImPower program utilizes a team-based approach and teaches a structured process for improvement based on A3 methodology. Project teams composed of front-line staff representing the process to be improved, come together with their software vendor representatives to develop a shared understanding of the issues, priorities, and changes needed to achieve project goals. Through the structured approach and program pacing, project teams gain alignment on goals, common language, improvement driven measure(s), and a repeatable process for feedback and iteration.

Implementation



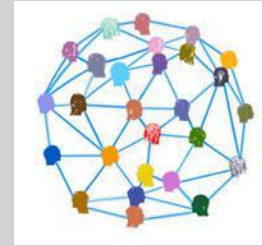
Structured Improvement Process

PI program using A3 methodology to enable shared understanding, a common language, rapid PDSA cycles, and sustainable solutions.



Project and Team Support

Clearly defined roles and responsibilities for daily tasks, decision making, project support, and barrier resolution.

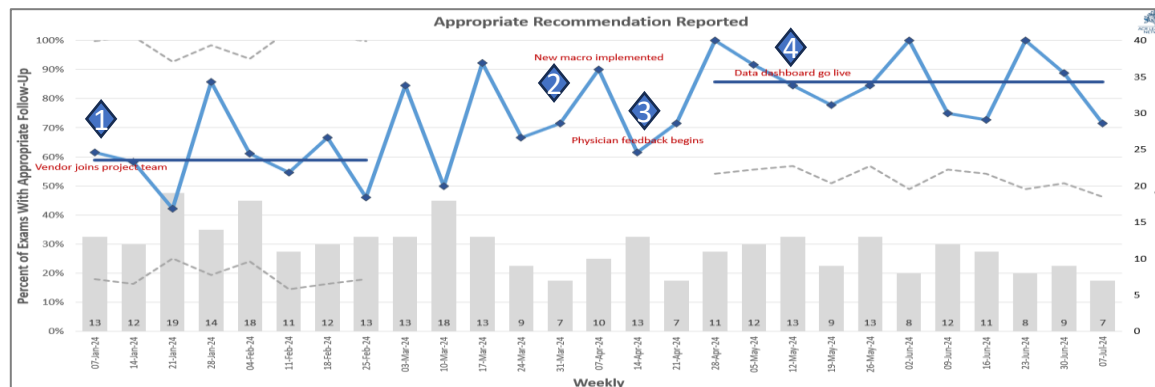


Collaborative Learning

Structured framework and pacing allows teams to collaborate within their team, across disciplines and organizations, and over time.

Analysis

- Establish and Practice the Partnership**
Vendor joins team and takes an active role in the success of the PI project
- Technology Optimization**
Team works to find solutions optimizing the people, process, and technology interactions
- Sustainable Integration**
Technology supports clearly defined roles and responsibilities to deliver high quality patient care
- Measure Implementation**
Process managed by appropriately responding to meaningful data co-designed by the team



Results

By using the ImPower program, software vendors and front-line staff create an effective sustainable partnership to optimize technology and support patient care. The team develops a shared responsibility to optimize the process and technology based on a shared mental model, not just from their respective perspectives. The team defines and implements improvement-driven measures and technology solutions to support data management empowering front-line staff to respond accordingly to data changes. Clear roles and responsibilities for decision making are outlined at the start of the project and the structured program supports methodical problem solving that can be repeated beyond the initial implementation.

Conclusion

Successful technology optimization is facilitated by structured improvement, clear roles and responsibilities, and a collaborative approach to problem solving. Organizations using the ImPower program can optimize technology to be the framework that support a process to empower staff in service of their patients. Process improvement is a team sport, so consider including your software vendor on your team!

Resources

D. B. Larson, K. Garcia Tomkins, K. Zacharias-Andrews, N. Irani, S. M. Pittman, A. S. Purysko, B. Wandtke, M. Bhargavan-Chatfield. The ACR Learning Network: Facilitating Local Performance Improvement Through Shared Learning. Journal of the American College of Radiology, Volume 20, Issue 3 (2023), pp. 369-376. ISSN 1546-1440.