

Executive Summary



Applying Lean to Improve the Patient Visit Process at Three Federally Qualified Health Centers

Overview

Federally qualified health centers (FQHC) represent the largest primary care system in the United States. A network of 1,200 FQHCs operate from 8,000 rural and urban service delivery sites across the country, providing comprehensive medical, dental, and mental health care services to a predominantly low-income, minority patient population. FQHCs face growing pressure to meet increased patient demands with limited staffing and financial resources. In order to ensure long-term stability, FQHCs must leverage existing capacity and maximize efficiency and effectiveness.

Applying the Lean Process Improvement Approach in FQHCs

In May 2009, Altarum Institute launched partnerships with three FQHCs—Alexandria Neighborhood Health Services, Inc. (Virginia), Baldwin Family Health Care (Michigan), and Penobscot Community Health Care (Maine)—through the Community Health Center Innovation Mission Project. The goal of this project was to apply innovative systems change methods to strengthen FQHC operations and, in turn, improve health for the patients whom they serve. Over an approximately 18-month period, Altarum and its FQHC partners worked together to improve operations using the Lean process improvement approach. The Lean methodology originated in the manufacturing industry and focuses on minimizing waste—be it time, energy, or resources—and maximizing value. This approach has recently been adopted in the health care sector, particularly by larger hospitals and health systems, and has resulted in financial savings, increased productivity, decreased delays in care, reduced errors, and improved quality of care. The application of Lean in FQHCs, however, is relatively limited.

Altarum supported FQHCs in adopting the Lean approach in two key ways: (1) providing training in Lean principles, tools, and techniques and (2) facilitating Value Stream Mapping (VSM) events. VSM is a Lean tool used to analyze a process from a systems perspective, creating a visual depiction of the sequential steps in a process from beginning to end. Additional support was provided to FQHCs based on each site's individual needs and requests.

To obtain a solid understanding of each FQHC's experience using Lean tools and techniques, Altarum conducted interviews with staff members, including those in leadership, direct care, and front-line positions. These interviews provide critical insights and practical lessons learned for other primary care organizations considering adoption of the Lean process improvement approach.

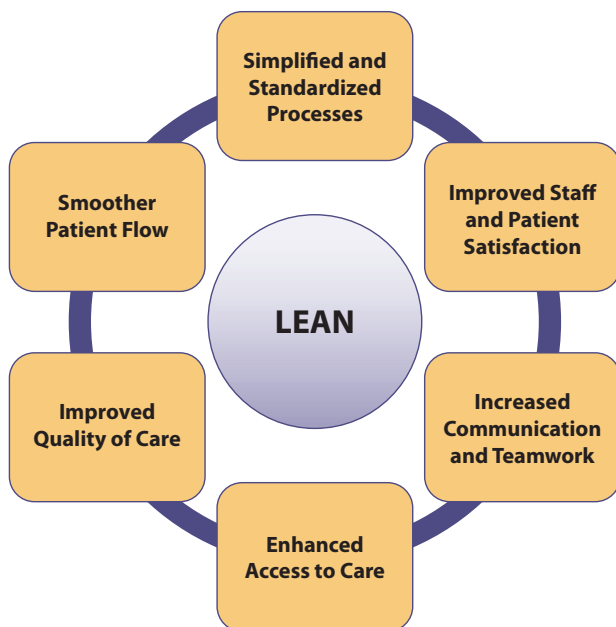
Lean tools and techniques were used to improve patient flow across the three FQHCs. The health centers addressed a range of problems related to:

- ✓ Scheduling
- ✓ Registration
- ✓ No shows
- ✓ Wait time
- ✓ Provider productivity
- ✓ Care coordination
- ✓ Miscommunication
- ✓ Unclear roles and processes

Findings

Staff members across the three organizations reported that the use of Lean enabled them to identify and make positive changes to several processes and workflows. Many of the improvements perceived by the staff are interrelated. The standardization of a complex, time-consuming process, for example, may have a ripple effect leading to improved patient flow, the provision of safer and better quality care, and enhanced patient access to care. In turn, the improvements may result in greater provider, staff, and patient satisfaction.

The Value of Lean



Staff members perceived the application of Lean to result in improvements in the following key areas:

Standardization of processes. Standard work is associated with role clarity, error reduction, and the promotion of safety. The three FQHCs implemented a number of changes to promote standardization, including the use of checklists and templates and the establishment of formal policies and procedures. As a staff member pointed out, “creating efficiencies and standardization is huge, because your resources are so limited. We cannot afford to do things many different ways.”

Patient flow. Changes that improved patient flow ranged from streamlining processes to organizing supply areas. These changes were associated with fewer delays and interruptions, reduced waste, time savings, and

enhanced staff and patient satisfaction. The importance of improvements in patient flow was captured by a health center staff member: “It makes the process flow faster. [Patients] are in and out, yet they still felt that all their needs were met.”

Communication. The VSM event was cited by staff members as a critical framework for openly discussing issues and challenges and provided a strong foundation for ongoing communication across all staff levels. One participant noted succinctly, “The more I see Lean working, the better I see communication working.”

Collaboration. Lean encouraged the increased use of interdisciplinary teams and was viewed as a key vehicle to facilitate movement toward a shared, common goal of improved patient care. As one staff member described, “I feel strongly that staff are more cohesive and working better together and are more team oriented.”

Staff satisfaction and empowerment. Staff members felt they were active contributors to the improvement process, had a voice, and could offer ideas and solutions for improvement. A staff member observed, “I’ve seen members of this team feel like they are bigger contributors than they had felt before because they’ve seen how they can play a role that really affects the patient process.”

Patient access to care. Improvements in provider and staff efficiency and patient flow were associated with enhanced patient access to care. Changes implemented helped to free up exam rooms, reduce wait times, and improve provider productivity. Decreased cycle times resulting from the use of computers in exam rooms, for example, “translates directly into more patients seen with the same staff.”

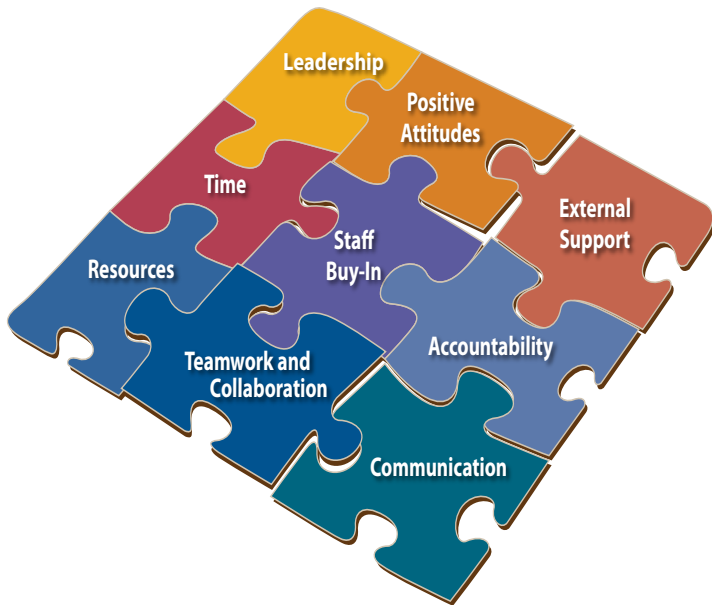
Patient satisfaction. Staff members observed changes in patient satisfaction, sharing anecdotes from patients pleased with experiencing a more organized, timely, and efficient visit. Changes implemented through Lean process improvement work were seen as “better for patient care,” with some staff members sharing that they now receive “more compliments than complaints.”

Quality of care. Many of the changes made in the areas of patient flow and standardization were identified by staff as having an impact on both quality and safety of care. Increased efficiency and better use of time, for example, allowed staff to focus on providing the best patient care. As noted by a staff member, “I can be more efficient. I can be more effective ... I can streamline certain things and spend that time with the patient. Because that’s what it’s all about—the patient.”

Facilitators and Barriers

Staff members revealed a number of factors perceived as supporting the application of Lean within their organizations, most importantly, staff buy-in and leadership support. The presence of these facilitators may serve as a powerful countervailing force to overcome barriers to change, such as competing priorities and limited organizational capacity.

Factors Supporting the Successful Adoption of Lean



Lessons Learned

Common themes emerged from the health centers' shared Lean journeys, which may serve as useful insights and lessons for other health care organizations:

Value Stream Mapping events provide a structure for critical thinking, teamwork, and problem solving in FQHCs. By design, VSM requires 3 full days of uninterrupted time for the FQHC staff to examine the root cause of problems and brainstorm solutions as a team. The end product is a roadmap for change, critical to maintaining focus and accountability amidst countless priorities competing for staff attention.

"The process itself is useful. It gets all the players in one place and gets them communicating so people learn things about the process ... It's visual. It gives everybody an opportunity to participate."

Lean empowers staff members to become active participants in the change process. The Lean approach introduces a new way of thinking and provides concrete tools enabling staff members to proactively resolve problems. This internally generated change separated Lean from other initiatives "forced" upon the staff by top management or external organizations. Improvements are a direct result of their own ideas and work, leading to a greater sense of achievement.

"I see changed attitudes. It really empowers people. It makes them realize that just because you've done something for a long time doesn't make it right or doesn't make it the best, and that you can always look and figure out how to do things better, faster, cheaper."

Leadership must demonstrate active support and investment of resources in order to implement Lean. Lean requires top-down commitment and prioritization from senior leadership in order for an empowered staff to then drive the improvement efforts. Leadership must directly engage in Lean activities and commit the resources required to both train staff members and offer them opportunities to continuously apply Lean methods.

"We've given up a huge amount of staff and provider time for the trainings and that costs us real money when we pull providers out of seeing patients ... but we believe it's been worth it."

The Lean approach takes time to gain traction. Once staff members see the impact of Lean on their own work—whether it is in the form of reduced stress, being able to complete their work faster, or the perception that patients are happier—skepticism and distrust give way to enthusiasm and receptivity to change through the Lean approach.

"...[Lean] was a real learning process initially...and then everyone [started] to embrace it slowly and talk about it more and more and it turned to belief and then into action."

Quick wins are critical to maintaining momentum. One way to address initial resistance to Lean is to target relatively simple, straightforward changes. Easy, seemingly obvious changes may have significant impact. Moreover, small successes build momentum, propelling staff to move forward with continuous improvement efforts. As referenced by several staff members, these quick wins are "contagious" as "success breeds success."

"People have made changes [and say] 'We put a chart together this way now instead of that way.' They are applying the concept but don't view it as a big win. It doesn't have to be a big win. What we are doing is improving our processes using these tools."

Lean is an effective tool for FQHCs in transitioning to the patient-centered medical home (PCMH) model. The Lean approach provides the structure, nuts-and-bolts tools, and accountability to assist FQHCs in making a smoother, faster transition to the PCMH model. Specifically, Lean helps translate PCMH features from conceptual ideas to a set of actual tasks and projects that must be completed.

"There are a lot of different things that have motivated [transition to the] PCMH, but I think [Lean has] given a framework for us to do it much more effectively."

Lean can be an effective change management and continuous process improvement strategy in the FQHC setting. Lean may serve as a welcome reprieve for overworked and underresourced FQHC staff, which is constantly having to do more with less. Once staff members recognize the benefits of Lean, they continuously explore opportunities to improve and perform to the best of their ability. In this way, Lean may help FQHCs to maximize the resources they have—a benefit of tremendous importance in the current health care environment.

"I think we are using our staff that we have more efficiently."

Conclusion

The experience of partner health centers in this project revealed that Lean can be adapted within FQHCs and lead to improvements in a number of areas. These include standardization, patient flow, communication and collaboration, patient access to care, patient and staff satisfaction, and quality of care. In addition, staff members expected continued improvements to generate financial savings.

In order to reap these benefits, however, Lean requires work and an upfront investment of staff time—the most valuable of health center resources. Such investment comes in the form of pulling staff away from providing direct patient care, resulting in short-staffed clinics as well as lost patient revenues. The costs and benefits of Lean are summarized in the following observation made by an FQHC staff member: "[The benefits are seen in] employee experience, in improving processes, having happier patients and employees...in the long run it is worth it."

It is important to recognize that Lean is a long-term approach to continuous process improvement and may take 5 years to become fully embedded within an organization. This project tested the implementation of Lean within a small sample of FQHCs over an 18-month time period. Despite these limitations, the findings in this report suggest that Lean has the potential to enhance operations within the primary care setting.

Altarum Institute's quality improvement experts have a history of successfully applying Lean principles to improve efficiency in more than 30 commercial health systems (including large, multisite teaching and research hospitals). A small sample of Altarum's health system clients include:

- Memorial Sloan Kettering Cancer Center
- UMass Memorial Health System
- Kaiser Permanente
- Dartmouth-Hitchcock Medical Center
- Scott & White Health System
- University of Michigan Health System

This report was produced under the auspices of Altarum Institute's Community Health Center Innovation Mission Project, a two-year, \$2.3 million internally funded initiative to strengthen the FQHC care delivery system and improve health for vulnerable populations. The project was designed as a working partnership between Altarum and FQHCs to test systems change methods, strengthen FQHC capacity, and ultimately enhance patient care. This project was one of three Altarum Institute Mission Projects Initiatives, which sought to solve pressing health care issues using systems methods at the institutional, organizational, and community levels in partnership with the public and private sector.

Altarum Institute is a 501(c)(3) nonprofit health care research and consulting organization. Altarum integrates independent research and client-centered consulting to deliver comprehensive, system-based solutions that improve health and health care. For more information, please visit www.altarum.org.

For more information about the report or to request print copies of the report or executive summary, contact:

Laurene Graig at Laurene.Graig@altarum.org or
Kristen Perosino at Kristen.Perosino@altarum.org.

