



# Implementing Lean in a Safety-Net Clinic: A Case Study Summary

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LEAN IS AN ORGANIZATIONAL REDESIGN approach for eliminating waste and adding value for customers. Although it began in the manufacturing sector, some argue that Lean is well-suited for health care because of its focus on standardizing and error-proofing processes.

To examine the implementation and effectiveness of Lean in community clinics, the American Institutes for Research conducted a case study at a large California federally qualified health center (FQHC). The fast-growing urban health center operates more than 20 sites and serves 160,000 patients, over half of them uninsured. In 2008, the health center adopted Lean (also called *Kaizen*) as a tool for organizational culture change, anticipating a 10-year process. Their objectives were to be a continually improving organization, as well as to respond to economic pressures. The approach and activities included:

- Training and development of existing staff in Kaizen principles and methods.
- Activities including 5S (sort, setting in order, scrub, standardize, and sustain) efforts to organize a specific work space or an entire clinic.
- Focused process-improvement efforts (called *Gemba Kaizen*) that involved staff in creating flow maps and identifying and overcoming roadblocks to redesign processes. In one example, pharmacy wait times at the health center's largest clinic was the focus of a Gemba Kaizen.

## Early Findings

This fact sheet offers early highlights of the Lean implementation. Qualitative data were collected in site visits and staff interviews between October 2009 and April 2011. A staff engagement survey was conducted in April-May 2010 and repeated in November-December 2011. In addition, the FQHC provided data on efficiency to the research team. The outcomes focus on four target areas: efficiency, organizational culture change, employee engagement, and Kaizen knowledge and skills. Because the Lean implementation is ongoing, the following preliminary findings should not be considered a definitive evaluation. It will likely take years to fully assess the effect of Lean on the health center.<sup>1</sup>

## Efficiency

Project-specific improvements in efficiency included: decrease in pharmacy wait time from 2 to 3 hours to 45 minutes; quicker patient referrals; improved productivity; and faster receipt of records for walk-in patients. The appointment completion rate increased from 64% to 72%. Patient time to exam room was reduced by 10 minutes in one clinic, but not in another. There were no statistically significant changes in third next available appointment, or in provider productivity.

## Organizational Culture Change

Interviewees mentioned improved teamwork and communication within and across clinics as well as a shift in the culture to a no-blame, systems view of problems. Improving wait times and enhancing patient communications were perceived

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to improve the patient experience. Statistically significant improvements were found in the employee survey: less perception of punitive response to errors; better safety practices; better communication within the organization; and enhanced interaction with leaders. However, there was little change in the percent of employees willing to always report errors.

**Employee Engagement**

Interviewees across multiple levels showed an improvement in employee satisfaction and engagement because of Kaizen—and this improvement was more pronounced in clinics farther along the Lean implementation process. Support staff experienced the greatest improvements in satisfaction according to interviews. Job engagement remained high (over 97%) throughout the 18-month study period. However some staff reported in interviews that they felt overwhelmed

by the addition of Kaizen activities to their regular responsibilities.

**Kaizen Knowledge and Skills**

Interviewees noted that Kaizen principles and skills became increasingly evident in clinics where the most Kaizen activity has taken place; effects were less clear elsewhere.

**Recommendations and Lessons Learned**

The experiences at the health center provided a number of insights that may be useful to similar organizations considering the implementation of Lean. (See Table 1.)

Because the Lean approach is flexible, it can be adapted to the size and particular needs of individual health care organizations. Rather than solving organizational problems, it is best thought of as a way to create and sustain a problem-solving culture.

**Table 1. Factors of the Lean Approach, Recommendations and Lessons Learned**

FACTOR	RECOMMENDATIONS AND LESSONS LEARNED
Managing Change	<ul style="list-style-type: none"> <li>• Early wins foster buy-in. The FQHC’s first Gemba Kaizens were viewed as successful, facilitating confidence in the Lean process among staff.</li> <li>• Choose an implementation plan that works best for your goals, timeline, and budget. The health center implemented an organization-wide training as a first step to cultural change. Other organizations may choose to implement a series of individual projects to bring about cultural change.</li> <li>• Communication about the process of Kaizen rollout across departments and clinics is critical.</li> </ul>
Leadership Commitment	<ul style="list-style-type: none"> <li>• Embed Kaizen in the organizational strategic plan. Aligning it with the strategic plan will ensure that staff understand that there is a firm commitment to Kaizen.</li> <li>• When initiating Kaizen implementation, engage the managers and executive team first. The health center’s leadership was deeply involved in learning about Kaizen and trained in how to engage their staff using Kaizen. This approach fostered support from the very top levels of the organization.</li> <li>• Kaizen ensures that solutions to a problem are derived from frontline staff; however, decisionmaking on what to do and where to focus must come from the leadership.</li> </ul>
Kaizen Training	<ul style="list-style-type: none"> <li>• Kaizen implementation at the organizational level requires expertise. External consultants are a critical resource for staff.</li> <li>• Provide opportunities for staff to get involved with Kaizen. Involving staff in trainings or projects will improve the dissemination of Kaizen knowledge and skills, and may promote further culture change.</li> <li>• Projects keep staff engaged and provide them with opportunities to apply their Kaizen knowledge.</li> </ul>
Implementation of Lean	<ul style="list-style-type: none"> <li>• Be prepared for significant investment of staff resources. Time during the regular workday, and sometimes on the weekends, must be carved out for staff training and for follow-up on Gemba Kaizens.</li> </ul>

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## ENDNOTE

1. The full report, “Implementation of Lean in a Community Health Center: A Case Study,” can be found at [www.chcf.org](http://www.chcf.org).

## MORE RESOURCES

*Going Lean in Health Care*. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2005. [www.ihf.org](http://www.ihf.org)

“Creating a Lean Culture at Family HealthCare Network” — A California Improvement Network Webinar. [www.chcf.org](http://www.chcf.org)

Lean Enterprise Institute. [www.lean.org](http://www.lean.org)

Lean Certifications from the University of Michigan. [www.interpro.engin.umich.edu/lean](http://www.interpro.engin.umich.edu/lean)

The Lean Enterprise Division of ASQ. [www.asq.org/le](http://www.asq.org/le)

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## ABOUT THE AUTHORS

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## ABOUT THE FOUNDATION

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