

BACKGROUND:

St. Clair Hospital is a non-profit independent 329 bed hospital in Pittsburgh, PA with about 2400 employees across multiple locations.

In 2008, the Hospital began a journey to become a **continuously improving organization** when senior management adopted Lean (an adaptation of the Toyota Production System) as its chosen improvement philosophy and methodology. Toyota is famous for its focus on increasing value by decreasing waste, which allows organizations from any industry—manufacturing, health care, education—reduce cost while simultaneously improving quality and satisfaction. Its focus is making the right thing for customers/patients/students easier for builders/caregivers/teachers to provide.

One of the core tenets of the Toyota Way is a deep respect for the expertise of its frontline workers. Organizations that adopt this approach develop every employee as scientific observers of their own work and design systems to support employees as full participants in identifying and solving problems every day.

By every measure—patient safety, quality of care, patient satisfaction, financial strength—this journey has taken St. Clair in the right direction, beginning with the dramatic turn-around of its struggling Emergency Department, one of the busiest in western Pennsylvania.

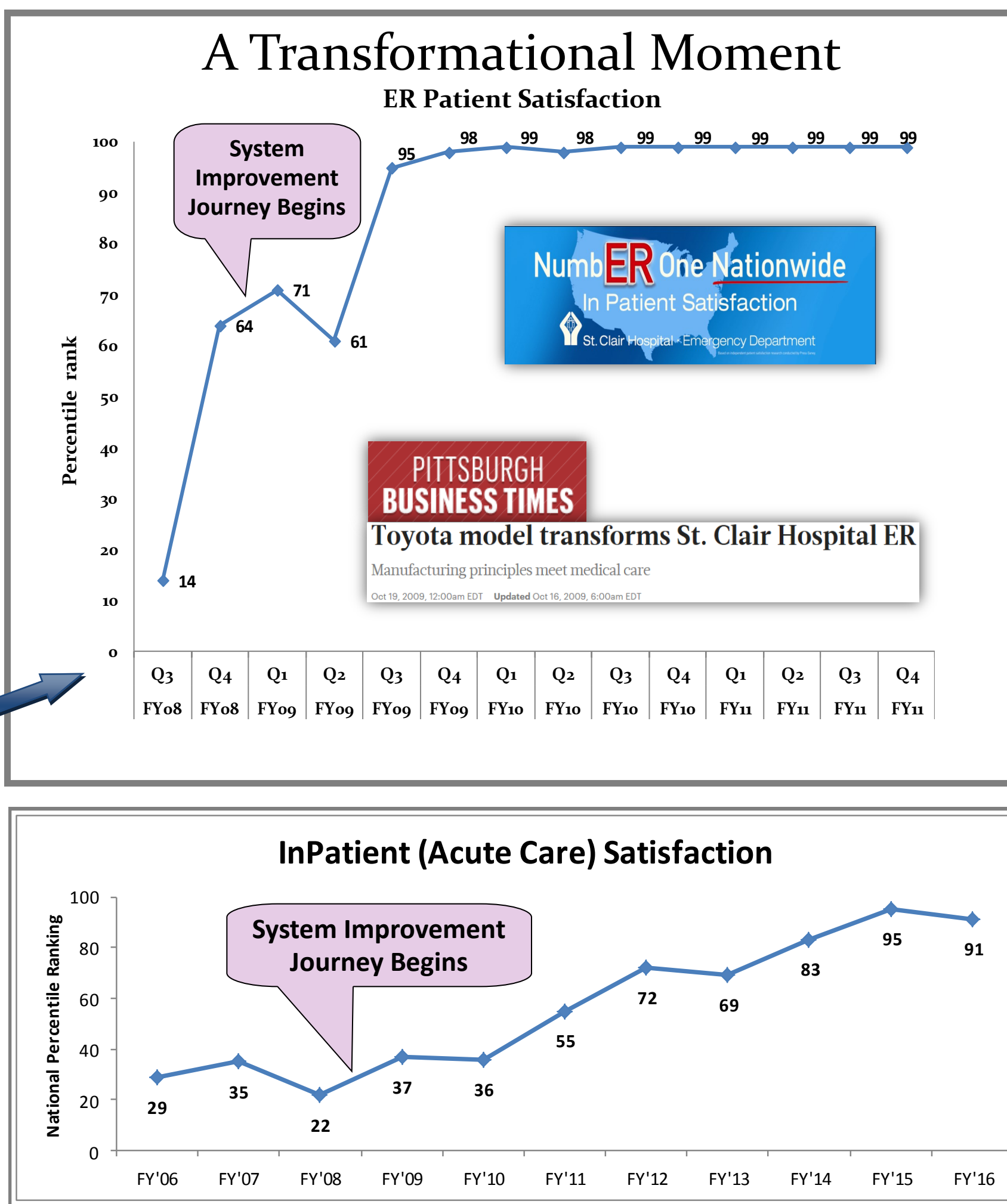
Key attributes of St. Clair’s successful improvement journey:

- (1) Leadership from the top—full support of the CEO and COO
- (2) A person dedicated full time to supporting organizational culture change and improvement
- (3) Adoption of a single organizational “language” for improvement, making it easier to communicate and problem solve within as well as across departments and locations
- (4) An early “win”—proof of concept that this approach works in our organization
- (5) A universal platform for communicating and documenting improvement—you cannot improve what you cannot measure

What is Lean?

“...an organization’s cultural commitment to applying the scientific method to designing, performing, and continuously improving the work delivered by teams of people, leading to measurably better value for patients and other stakeholders.”

—John S. Toussaint, MD and Leonard L. Berry, PhD
from “The Promise of Lean Health Care” published by the Mayo Foundation for Medical Education and Research in 2013



THE GOAL:

Achieve and sustain a robust organizational culture of continuous improvement using Toyota/Lean.

THE CHALLENGE:

You can measure quality improvement with any number of desired outcome metrics, but **how do you measure the health and growth of your improvement culture?**

THEORY OF IMPROVEMENT:

CONTINUOUS IMPROVEMENT IN EDUCATION
BY SANDRA PARK, STEPHANIE HIRONAKA, PENNY CARVER, AND LEE NORDSTRUM
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3 features of continuous improvement

- (1) The **frequency** of quality improvement work
- (2) The **depth and extent** of its integration at different levels of the organization
- (3) The extent of **contextualization** within a system of work processes

“...continuous (quality) improvement is the act of integrating quality improvement into the daily work of individuals in [a] system.”

Building a Learning Organization by David A. Garvin
Harvard Business Review 1999

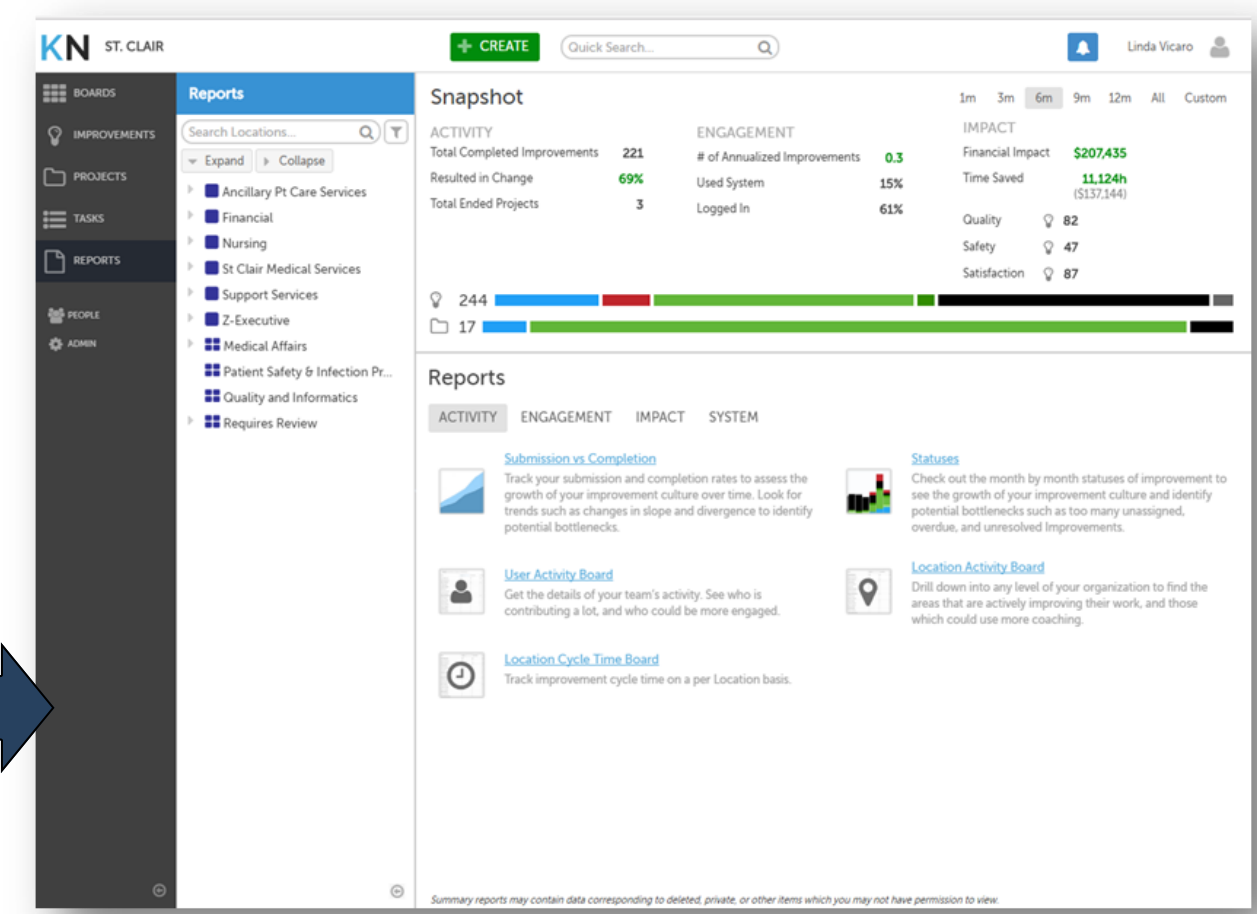
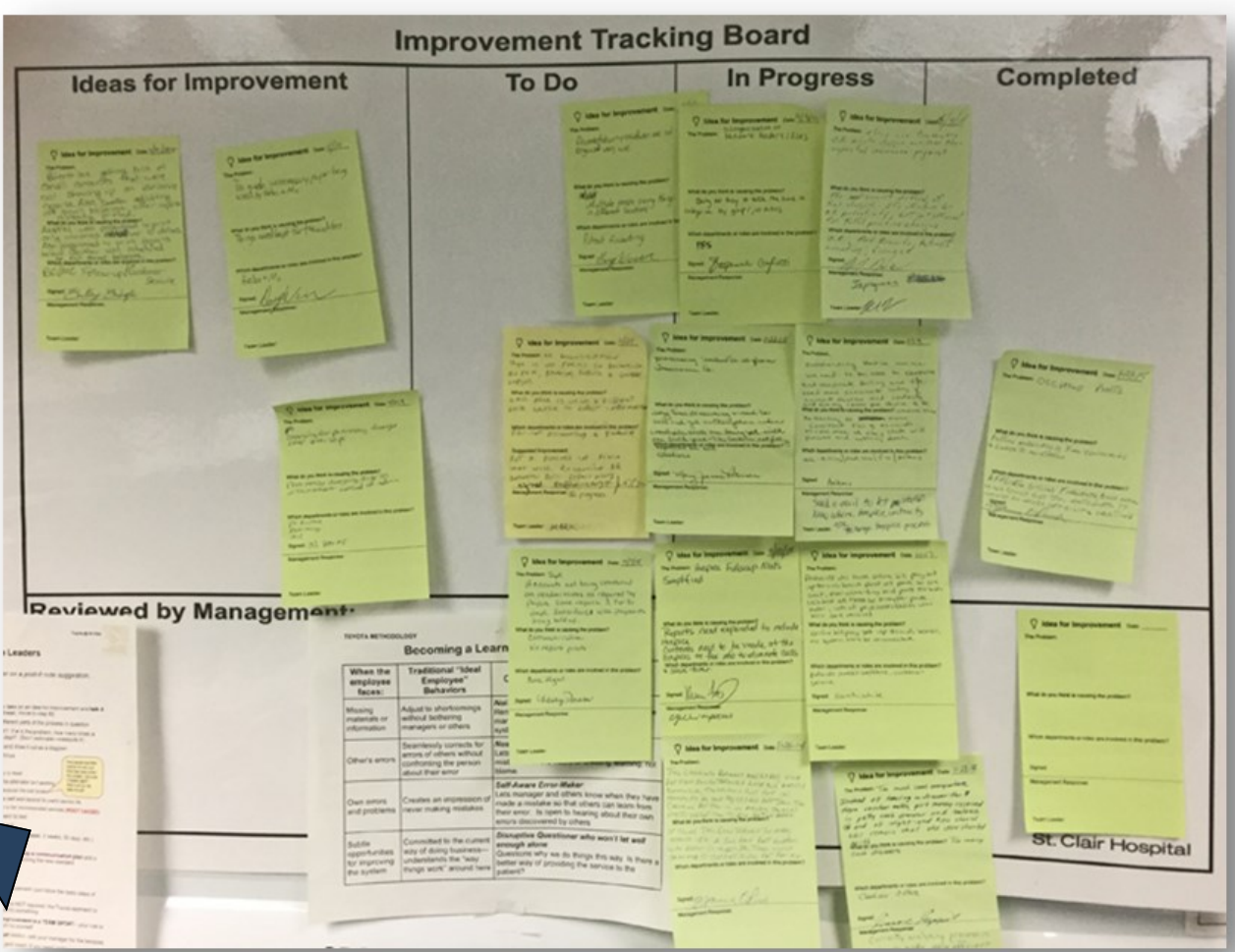
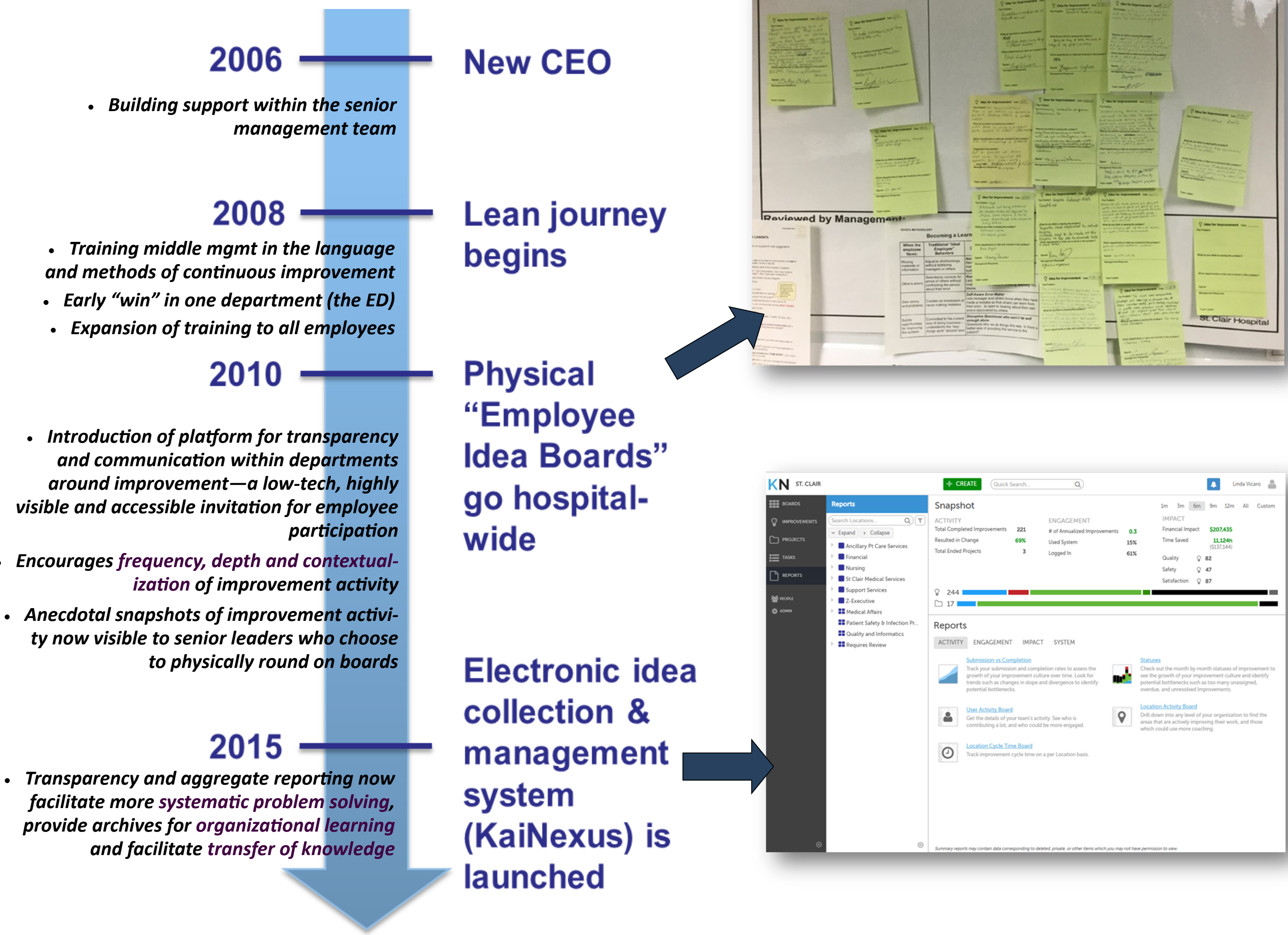
Learning organizations are skilled at 5 main activities:

- (1) **Systematic problem solving**
- (2) Experimentation with new approaches
- (3) **Learning from their own experience and past history**
- (4) Learning from the experiences and best practices of others
- (5) **Transferring knowledge quickly and efficiently throughout the organization**

Most companies practice these activities in haphazard isolation. “By creating systems and processes that support these activities and integrate them into the fabric of daily operations, companies can manage their learning more effectively.”

EVOLUTION OF AN IMPROVEMENT

CULTURE:



PAPER-BASED SYSTEM

- PROS:**
- ♦ Low-tech, low cost
 - ♦ Visible, tangible, accessible
- CONS:**
- ♦ Limited space for information
 - ♦ Invisible to other departments
 - ♦ No aggregate reporting without intensive manual intervention

ELECTRONIC SYSTEM

- PROS:**
- ♦ Transparency and visibility org-wide
 - ♦ Allows for collaboration across departments and locations
 - ♦ Supports scientific problem solving with templates/prompts
 - ♦ Data! Aggregate Reporting for easy measurement of improvement culture
- CONS:**
- ♦ Requires investment in software and training
 - ♦ “Hidden” inside computers

THE METRICS WE CAN CAPTURE:

USER ENGAGEMENT SUMMARY
Entire Organization

0.4% IMPROVEMENT PARTICIPATION
27% IDEAS SUBMITTED
82% IDEAS COMPLETED

How many and what percentage of employees are active in submitting and working on improvement ideas, and to what extent they are engaged.

USER PARTICIPATION SUMMARY
Entire Organization

EMPLOYEE ENGAGEMENT (Improvement Ideas Submitted)

How many and what percentage of employees and depts are active in the system

- ♦ **VOLUME:** How many improvement ideas submitted (overall, by individual, by department, by date)
- ♦ **PARTICIPATION/SPREAD:** How many and what percentage of employees and depts are active in the system
- ♦ **IMPACT:** Impact of improvements when completed (time saved, dollars saved, customer and staff satisfaction, etc.)
- ♦ **QUALITY of SCIENTIFIC PROBLEM SOLVING:** Visibility into thought processes and data of problem solvers

This visibility tells us where to send our limited improvement coaching resources. When participation levels and/or volume are low, it is usually an indicator that the manager needs more support and encouragement on how to promote a culture of improvement within their department.

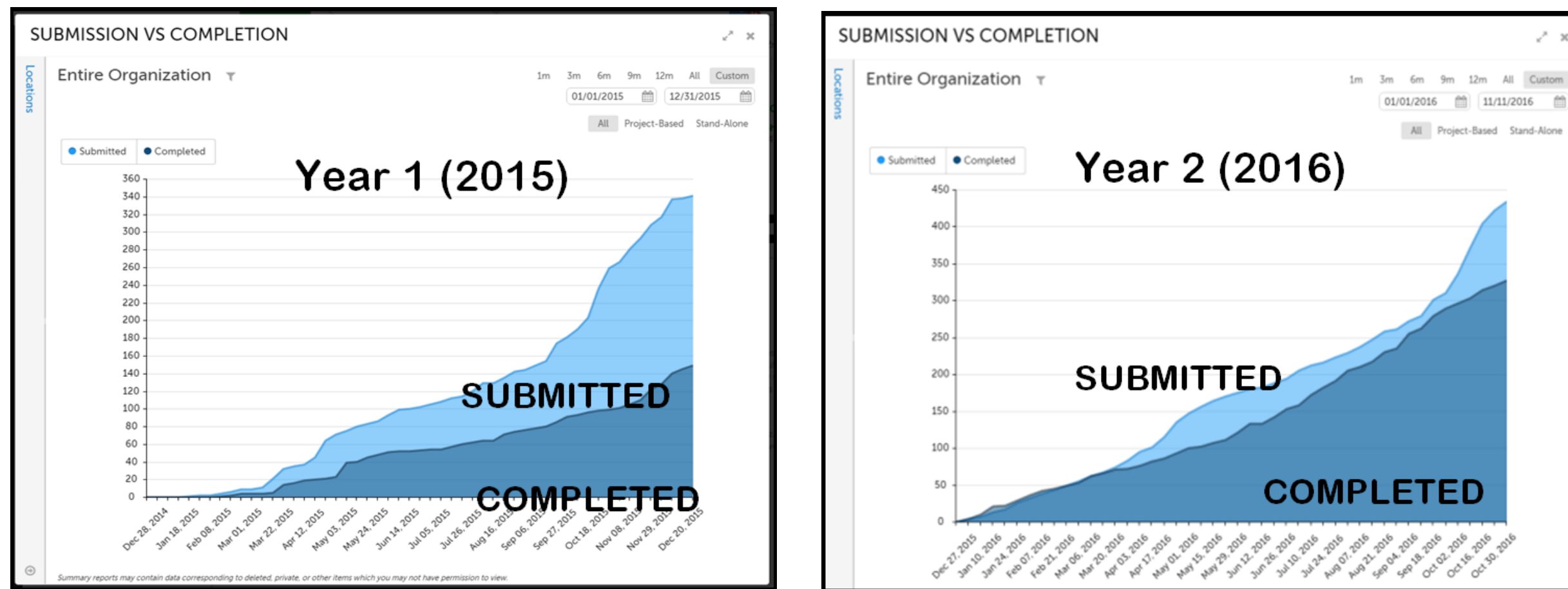
Being able to give feedback to individuals and departments on the impact their improvement work has on the organization overall generates satisfaction and enthusiasm to do more! It also supports more objective performance evaluations.

The system is equally transparent about quality: coaches have insight into how individuals document their problem solving process. Strong examples can be showcased for organizational learning, and weaker examples can receive targeted coaching.

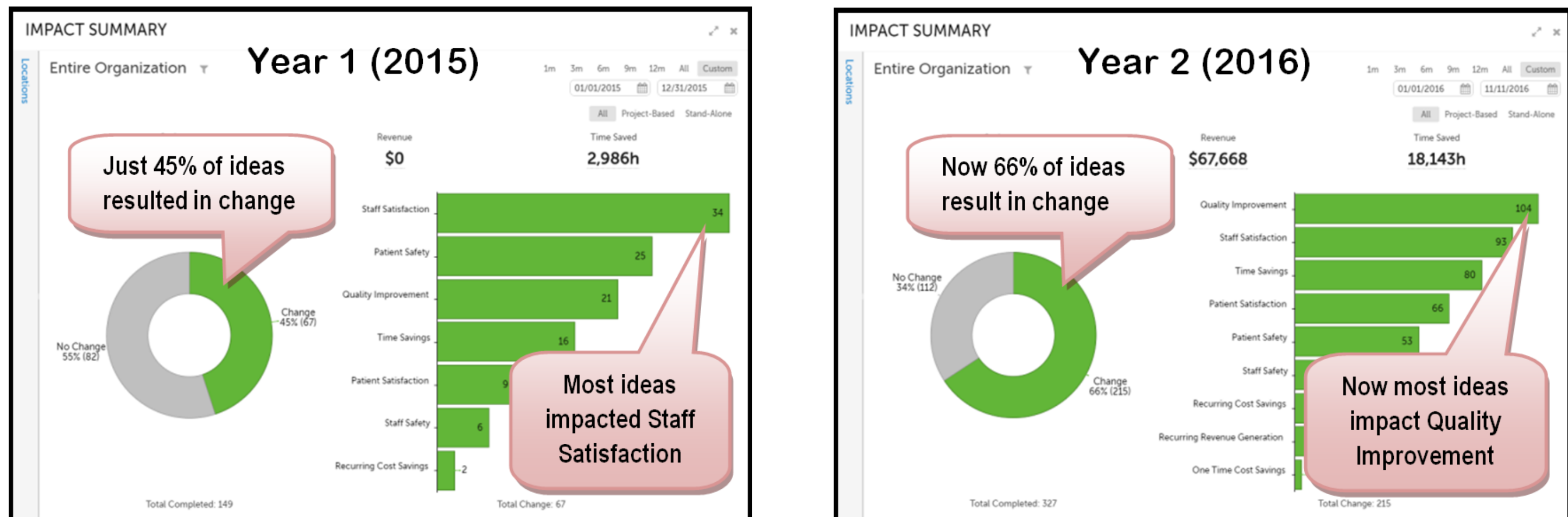
WHAT WE LEARNED:

(1) It takes time for an improvement culture to mature—be patient.

St. Clair is gradually getting better at bringing ideas for improvement to completion in a timely way:



And the Hospital is getting better at framing ideas (i.e. identifying and defining problems) that lead to more fruitful and meaningful change:



How did St. Clair improve engagement year over year? A major factor was making participation in KaiNexus (the new electronic platform) one of the organizational goals that is tracked and reported on at every monthly leadership meeting. The goal has both a quantity and a quality component: in order to be counted, an improvement must include quantitative data—a simple indicator of using the scientific method.

(2) “Improvement” work doesn’t have to mean “extra” work.

- ♦ Healthcare professionals and managers are already fighting fires and solving problems every day; becoming a continuously improving organization doesn’t have to mean adding more problems to the pile, it means becoming systematic, disciplined and scientific about how you solve your daily problems. And as you get more systematic about truly solving problems instead of building temporary work-arounds, you begin to reduce the number of fires you have to put out and win back more minutes in your day which you can then reinvest in building even greater stability and standardization into work processes.
- ♦ Beware the quota system for stimulating participation at the departmental or individual level. Quality not quantity. Use tracking systems for the visibility they provide into the quality of your organization’s problem solving skills, not to drive quantity. Don’t waste time incentivizing people who already feel they have too much to do to game the system.
- ♦ Use your improvement tracking system to document work that leadership is already required to do. In most organizations, improvement work is perceived as yet another item on their to-do list. When managers were asked to use the new system to document projects already required and underway for regulatory compliance (their annual department Performance Improvement Plan), they got their feet wet and learned to appreciate its strengths — transparency, collaborative potential and the assistance of templates to ensure a standard process for working through a problem; KaiNexus achieved buy-in from most of the management team within a year.

(3) No problem is too small to work on.

At the heart of Toyota is its culture of *kaizen* or “incremental improvement.” Rather than jump from major project to major project, Toyota trusts in the accumulation of many small improvements made to daily work every day with the help of every employee. Tracking software allows an organization to capture every small improvement, which may not feel significant by itself, but when reported in aggregate begins to show a collective impact across an entire department/location or over an entire year. Providing that aggregate data back to employees encourages ongoing participation and helps individuals connect to a larger enterprise of continuous improvement.