How VUMC Saved over \$800,000in 100 Days with

KaiNexus



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E Introduction

Monroe Carell Jr. Children's Hospital at Vanderbilt is one of the nation's leading children's hospitals, preventing and treating health concerns ranging from colds and broken bones to heart disease and cancer. World-class facilities and Magnet® status (the only group so honored in middle Tennessee) are a testament to the community's dedication to the health of children. Constructed in 2004 and expanded in 2012, the 271-bed hospital is a child-friendly facility that received an "A" rating for safety, quality, and affordability in The Leapfrog Group's national review.

At the beginning of 2013, Monroe Carell Jr. Children's Hospital Outpatient Care (CHOC) at VUMC began using KaiNexus to empower front line staff to improve their department by submitting opportunities for improvement to leadership.





14 members of the pediatric outpatient management team



Identify and implement 2 Opportunities for Improvement over a 100-day period.



To improve the financial bottom line of the organization by reducing waste and optimizing resources, without negatively impacting quality of care.



100 Day Workout: A formalized improvement structure that originated at General Electric to:

- Increase accountability
- Provide focus and traction
- Enable participants to share and spread their Opportunities for Improvement

EXAMPLE Why KaiNexus?

- Provides the transparent communication platform necessary to drive and sustain the improvement work.
- Empowers the team to focus their efforts on implementation of improvements and ideas, rather than on the administrative functions of figuring out how to manage the work and track the progress in places such as Excel, emails, and bulletin boards.



Facilitates project management:

- Entering Opportunities for Improvement
- Approving projects
- Organizing efficient meetings
- Tracking the progress of projects
- Calculating the cumulative impact



- work, so that no extensive improvement process or methodology had to be taught before work could begin.
 - Enables mangers to see immediate results.

KaiNexus empowered CHOC to achieve a level of success that far surpassed their prior attempts to improve the bottom line without such a platform.



Method



Idea Collection and Selection

Over a two week period, the managers discussed ideas for projects with staff and faculty during rounding. During that time, staff, faculty, and managers generated ideas for the project and submitted them into KaiNexus. In the subsequent two-week period, two project facilitators reviewed the submitted ideas, looking for ideas that best met the intent of the project. Using KaiNexus,



the facilitators were able to track the progress of each idea, communicating seamlessly with the manager. KaiNexus provided a unified platform from which to work and communicate as they increased their understanding of the proposed Opportunity for improvement and decided on an appropriate course of action.



Implementation

As the team worked on implementing the Opportunities for Improvement, they came together at pre-determined intervals for check in meetings. While all of the information on each Opportunity was available in the KaiNexus system for all team members to view at any time, this did not eliminate the desire or need for in-person communication. By using the KaiNexus interface to structure the meeting and display project information, the team was able to discuss their work and share their progress, and offer each other support and suggestions. Also, these meetings enabled the team to learn from their colleagues' ideas and experiences, and to implement these ideas within their own clinics.

Check Ins:

- **30 Days:** The team gave a brief synopsis of each of their Opportunities for Improvement, including status, barriers, and key findings. Additional time was allowed for QAs from the team.
- **60 Days:** The team gave updates on their progress and plans for measuring savings, and discussed strategies for spreading their improvement ideas to other areas of the clinic. A member of the VUMC finance team was in attendance to help managers to assess the financial impact of their Opportunities for Improvement and ensure an accurate impact statement for each Opportunity.



As each Opportunity for Improvement was completed, the team member responsible for the Opportunity carefully calculated the estimated impact that the work would have in their department with the help of the VUMC finance department. These results were entered into KaiNexus, where the software then tabulated the cumulative impact of all Opportunities to show the effect of the project on the bottom line.

In addition to the anticipated revenue generation and cost savings, the team also found that their Opportunities for Improvement resulted in improved quality, safety, and satisfaction. These additional benefits of the work were highly valued and duly noted in KaiNexus, as well.

90 Days: Invited guests, including leaders from other areas of the organization, attended the final presentation that included an aggregated summary of the overall success of the project. Managers shared some project examples and discussion ensued regarding the relevance of the Opportunities for Improvement for other parts of the organization.

Highlights

Cost Savings

Opportunities for Improvement could be as simple as realizing cost savings by implementing a standard operating procedure, such as reducing the amount of supplies used.

For example, CHOC staff members previously provided patients with several non-chargeable spacers (attachments to nebulizers to make the medicine more effective) – one each for locations such as school, daycare, and home. The idea for improvement was to change the standard operating procedure to providing just one spacer, giving prescriptions for the remaining supply. This Opportunity generated recurring cost savings \$930 per week in this clinic, and has since been implemented in other clinics as well.

Revenue Generation

Opportunities for Improvement could also increase revenue by implementing processes that save staff time and increase the number of cases that can be scheduled in a day.

For example, one manager's Opportunity for Improvement focused on increasing the utilization of operating room block time, which resulted in \$201,000 of additional recurring revenue.

Results

During a 100-day period from April to July 2013:

- 34 Opportunities for Improvement were submitted by 14 different team members
- 31 Opportunities for Improvement were completed
- 3 Opportunities were extended into longer-term projects still in progress, and as such, the impact of these has not yet been calculated
- 99.2%, or 27, of the completed Opportunities for Improvement resulted in a change

Impact:

- 7 Opportunities for Improvement resulted in a one-time cost savings
- 16 resulted in a recurring cost savings
- 6 saved time (resulting in soft savings)
- 5 resulted in revenue generation.

Another significant result of this project was the

additional unintended impacts of these Opportunities for Improvement. While the managers had set out to improve the bottom line, their ideas ultimately improved many other crucial elements of clinic operations as well.

- 6 Opportunities for Improvement impacted quality
- 2 increased patient safety
- 4 improved patient satisfaction
- 6 improved staff satisfaction.

Four Opportunities for Improvement resulted in no change; two of these because the Opportunity was already part of an existing effort, and two because the ideas outlined in the Opportunities were deemed "out of their control."

Financial Impact:

As a direct result of this project, CHOC realized \$861,751 to their bottom line margin:

- \$163,619 in annually recurring cost savings
- \$58,471 in one-time cost savings
- \$406,936 in annually recurring revenue generation
- \$201,390 in one-time revenue generation
- \$31,335 in soft savings (2,053 hours of labor per year)

This financial impact is impressive, and far surpassed the anticipated impact of the project. However, these numbers do not tell the whole story. The team for the individual clinic in which each Opportunity for Improvement originally was implemented calculated the financial impact of the Opportunities. However, one of the benefits of managing the project in KaiNexus was the ability to spread ideas throughout VUMC as a whole, providing a much larger benefit that is, as yet, unmeasured. The team meetings resulted in people sharing ideas and

implementing others' Opportunities in their own work areas, as well as building off of those ideas and improving them to match their own local needs and processes.

In addition, the project information (including both outcome and detailed process information) will continue to be immediately available to staff throughout all of the VUMC departments who also manage their improvement in KaiNexus, and is thus available for replication throughout the organization.

The high level of success of this project led CHOC to begin another project using this structure, this time with a focus on patient safety.

E Conclusions

These results indicate that managing a 100 Day Workout process in KaiNexus is a highly effective way to drive improvement efforts in an organization.

This process provides the structure needed to keep a project on track, with a defined end that creates a push for completion of Opportunities for Improvement.

The use of the KaiNexus platform creates a seamless documentation of improvement work and its impact, allowing staff to focus more on the work and less on the administrative management.

The collaboration, transparency, and tracking enabled by KaiNexus empowered the team to make a quantifiable difference in their workplace.

KaiNexus.com

The best way to improve your business or organization is by leveraging the collective knowledge of every employee. KaiNexus is a cloud-based software platform that unites your team around opportunities for improvement and facilitates their progress from inception to ROI.

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