

# SUBJECT TO REVIEW

## In 50 Words Or Less

- An emphasis on “systemness”—a well-functioning whole rather than well-functioning parts—can be instrumental in controlling costs in healthcare settings.
- A Virginia hospital’s handling of several Six Sigma projects illustrates how improvement teams need proper training to ensure right tools are used to improve the probability of project success outcomes.

Factors that lead to  
**success or failure**  
in healthcare  
projects

by Todd Creasy



## HEALTHCARE DELIVERY

has changed dramatically over the years: from simple house calls to health maintenance organizations, point of service plans, preferred-provider organizations and Affordable Care Act exchanges. Not surprisingly, the common tread in the most recent delivery systems is cost containment.

Controlling costs, in fact, has become the priority for health-care executives. “The challenge for industry executives is to continue to control spending even in the face of countervailing winds such as expensive new innovations, improved consumer confidence, and an aging society that requires more medical care and services,” according to the 2015 PricewaterhouseCoopers (PWC) Health Research Institute report.<sup>1</sup>

Authors of the report also suggest the need for “systemness.” When referring to the many services offered by a typical hospital, this new buzzword emphasizes the need for a well-functioning whole rather than well-functioning disparate parts. Care teams should strive to achieve more by working together, eliminating redundancies and reinforcing common goals through clinical and administrative standardization, which should lead to lower operating costs, PWC suggests. Healthcare organizations and hospitals are no strangers to the need to standardize, economize and seek to do more with less.<sup>2-4</sup> For several years, healthcare projects have been initiated to reduce costs, increase quality of care and improve patient, clinical staff and employee satisfaction.

Despite these attempts to improve the effectiveness and efficiency of healthcare delivery systems, however, many projects fail to deliver on the opportunity. Several reports support how project opportunities often fall short of expectations:

- A *McKinsey Quarterly* report in 1994 examined 100 organizations that had engaged in significant projects and how the organizations’ executives believed too much had been invested with too few bottom-line results.<sup>5</sup>
- A 1994 report cited in *ComputerWorld* said nearly 85% of top executives were dissatisfied with the results of process re-engineering.<sup>6</sup>
- A Minitab survey of 200 Six Sigma professionals looked to pinpoint the main reasons projects fail. The results were narrowed into 41 failure themes,

which were then reduced to the top eight reasons.<sup>7</sup>

- Multiple studies report that up to 70% of projects fail. For total quality management projects, the failure rate ranges from 60 to 80%.<sup>8</sup>

Looking to reduce waste, standardize practices, improve quality of care, and advance clinical or staff productivity, many hospital CEOs have turned to process improvement or re-engineering to achieve operational goals. Many of these efforts have paid dividends, but others have not.

Considering the results of the PWC report and its call for systemness, this article seeks to identify two dynamics while showing why some healthcare projects fail and others succeed. It is hoped that lessons learned can help reduce failure percentages and boosting healthcare project success rates.

### Case and method

A study was conducted at a 200-bed rural Virginia hospital that had engaged in Six Sigma projects for about four years. The hospital’s investment included lean Six Sigma (LSS) White Belt training for all senior managerial staff, Green Belt (GB) training for about 25 personnel and Black Belt training for one senior manager.

During the four-year span, Six Sigma projects were classified as either:

- **An unqualified success**—a project such as improving a med-cart exchange between nursing and pharmacy, the time to get obstetrics supplies,

## Survey for successful and moderately successful projects / TABLE 1

Options when explaining successful or moderately successful project outcomes
1. Size of the project (sized appropriately—not too large).
2. Senior management support and prioritization.
3. Process owner involvement and commitment.
4. Project leader (provided good leadership).
5. Process complexity minimal (perhaps had low-hanging fruit).
6. Project goals (properly defined and clear).
7. Spirit of collaboration between department heads or within department.
8. Good cohesion among project team.
9. Measuring system was good (able to collect and report valid data).
10. Good control system for process.

# Healthcare organizations and hospitals are **no strangers** to the need to standardize, economize and **seek to do more with less.**

patient meal tray preparation or preadmission testing, met the project charter's stated goal.

- **A moderate success**—a project, such as improving patient central scheduling for outpatient surgery, emergency room (ER) wait time, 5S in supply closets, dirty linen processing or patient snack ordering, had some success but could have achieved more.
- **Unsuccessful or disappointment**—a project such as 5S on a particular floor, operating room scheduling, lab testing quality and turnaround time, or collaboration between first and second-shift housekeeping, failed to meet the charter goal.

The research method involved conducting half-day, group interviews with several GBs with different experience levels and healthcare positions. Queries were made about hospital projects the GBs knew about, either through personal involvement (as a leader or team member) or second-hand information. Projects with outcomes that could be classified into one of the success categories were selected by senior management, department heads, and LSS practitioners and leaders.

During the meeting and for each project under review, the particular project was named and leaders chosen. The goals and the department on which the project would be focused also were named. To ensure valid responses by meeting attendees, each participant was given an anonymous survey at the beginning of each project's dialogue.

Table 1 shows the survey instrument for successful and moderately successful projects. Table 2 shows a similar survey instrument for projects considered disappointments or failures.

Using these surveys before each project's discussion, the meeting attendees were asked to identify the top three reasons that would explain the improvement projects' success, moderate success or failure. After

votes were collected, conversations offered additional insight into each project's success level.

## Link to leadership

Depending on the type of project considered (successful or moderately successful), there were 10 possible survey responses for each project. When considering the projects categorized as a failure, there were 11 possible survey responses. In Table 3 (p. 28), the top reasons (reflecting a scoring tie) for each project outcome category are listed in descending order of importance.

In this table, project success and failure anchor opposite ends of the continuum with moderate success in the middle. Initially focusing on the anchor points and examining the reasons for success and failure, both seem to be strongly related to leadership.

When considering the successful projects, project leadership, project team cohesion—which can be di-

## Survey for unsuccessful or failed projects / TABLE 2

Options when explaining failed or unsuccessful project outcomes
1. Size of the project (too large, not manageable).
2. Low senior management support and prioritization.
3. Little to no involvement of process owner.
4. Project leader (Green Belt) skills and interest lacking.
5. Overly complex process.
6. Lack of clearly defined project goals.
7. Little or no collaboration between departments or within department.
8. Continually changing project goals.
9. Low team cohesion.
10. Poor measuring system.
11. Little or no control mechanism to keep process performing well.

rectly influenced by the project or departmental leader—and process owner involvement all exhibit some form of leadership. A 2002 survey of 126 organizations showed top management sponsorship and commitment were the most important contributors to any successful change initiative.<sup>9</sup>

Within a healthcare environment, process owners are usually clinicians: for example, nurse managers, lab supervisors, physical therapy department leaders, registered dietitians, doctors and surgeons, and ER directors. Without the involvement and support of these employees, success at the clinical level will be difficult.

In terms of leadership's importance related to project failure, similar results were found. Project management, process owner involvement and collaboration among departments—which is directly influenced by that department's manager—each relate directly to leadership. The absence of leadership can have a profound negative effect on projects, according to recent research:

- When examining the top eight reasons projects fail, the Minitab survey of 200 Six Sigma professionals noted the top failure mode, not surprisingly, was the lack of management support.<sup>10</sup>
- “Little to no support from the leadership ... implementing the initiative” is one of the three leading reasons for quality initiative failures, wrote authors Jamison Kovach and Jerry Mairani.<sup>11</sup>
- The lack of executive leadership, support and participation is a big influence when projects fail, wrote author Martin Smith.<sup>12</sup>

Based on this sample's collective opinion and in

support of previous research, the balance between project success and failure depends heavily on the department leader and the project manager (in this case, a GB). As such, it is imperative the process owner—most likely a clinician—and the Six Sigma project leader be held responsible for the improvement initiative.

Interestingly, for moderately successful projects—those that could have attained more but didn't—notice that no forms of leadership were selected to justify that ranking. This section is classified as “project dynamics,” which could mean that even with lesser forms of leadership, if a project team has grounded itself securely with several fundamental tenets, there is a good change of some project success:

- **Properly defined goals** was one of those fundamentals and seems to support Smith's research that noted “the most important contributors to re-engineering success were a clear mission statement and understanding of the business re-engineering definition.”<sup>13</sup>
- **A good measuring system** was the second reason given for a moderately successful project. This factor is supported by research that noted an absence of data was the No. 4 reason for a project to fail.<sup>14</sup>
- **The size of the project** was ranked high to ensure moderate project success. Selecting a manageable-sized project was supported by Louis Johnson, who noted large project size as being the No. 5 reason projects fail,<sup>15</sup> and Smith, who wrote that projects “kept small and manageable” had a greater chance of success.<sup>16</sup>

## Top 4 reasons for project outcomes / TABLE 3

Rank	Successful projects	Moderately successful projects	Failed projects
1	Effective project leader (Green Belt)	Properly defined and clear project goals	Little to no involvement by process owner
2	Cohesion among project team	Measuring system good (able to collect valid data)	Little or no collaboration between departments or within department
3	Measuring system good (able to collect valid data)	Project sized appropriately—not too large	Overly complex process
4	Process owner involvement/commitment	Process complexity was low (had low-hanging fruit)	Ineffective project leader (Green Belt)
	<b>(Project leadership)</b>	<b>(Project dynamics)</b>	<b>(Project leadership)</b>

# If there is **no data capturing system**, Six Sigma **is not an option.**

Finally, to achieve some level of success, the respondents indicated low project complexity and getting some early wins (via low-hanging fruit activities) were necessary. Most Six Sigma practitioners and coaches advise that early wins can sustain and fuel the process improvement initiative. It is possible that with enhanced leadership at departmental or project levels, these moderately successful projects could have moved to the successful column.

## What have we learned?

Leadership at the project level is critical. It is imperative that your LSS belts are well trained and capable. Cohesion among project team members may depend on the ability of the project leader.

Leadership at the department level—or process-owner level—is even more critical. Without their buy-in and full cooperation, even the best-trained LSS practitioner will struggle. Additionally, if cross-departmental collaboration is essential for project success, its possibility will be dampened by disinterested department managers.

Perhaps most importantly, the basic tenets of a well-defined, adequately sized and manageable project that offers less complexity and some early-win opportunities with proper data collection mechanisms may afford some level of success—even with a nonparticipatory department leader.

“Lean is inductive; Six Sigma is deductive,” wrote Neil Nilakantasingh and Arun Nair.<sup>17</sup> Considering Six Sigma’s data requirements, a poor measuring system in terms of frequency and validity is a significant handicap to a LSS practitioner. If there is no data capturing system, Six Sigma is not an option.

## The right training

With the dynamic nature of healthcare in the 21st century and the need to improve patient outcomes while at the same time reducing costs and improving the financial strength of our healthcare institutions, the need for process improvement in healthcare is not going to diminish in the near future. Healthcare practitioners,

clinicians, consultants and various stakeholders engaging in continuous improvement must pay careful attention to their improvement teams and those tasked with working with those teams.

Improvement teams should get proper training to ensure the necessary tools are offered to improve the probability of project success outcomes.

Based on the sample data presented in this article, these factors should improve healthcare patient and process initiatives, resulting in fewer project failures and more project success, thus improving the likelihood of producing healthcare systemness. **QP**

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