# Establishing a Framework for Organizational Transformation in Healthcare

## Performance Solutions

*Consensus is building around the need for transformation in healthcare. This quest for excellence and a competitive edge has increasingly involved adapting best practices from other industries. In some cases, hospitals have augmented their management teams and acquired fresh perspectives by recruiting executives from manufacturing, retail and consumer services. Some of the most successful health systems are adapting the same business strategies and process improvement techniques that have allowed companies like General Electric to thrive over the past two decades. This paper examines both the critical challenges facing healthcare providers, as well as potential solutions for achieving and sustaining organizational transformation.*

## Introduction

Despite major advances in technology and treatment options, the U.S. healthcare industry remains mired in complex, deeply rooted challenges. A variety of market forces and systemic deficiencies are undermining the quest to deliver the best possible care in the most efficient and cost-effective manner.

> **"The concept of competing on value, which includes both cost and quality dimensions of performance, has become a reality."**
>
> –Futurescan: Healthcare Trends and Implications 2005-2010 E-Book

The pressures are manifold and overlapping. Hospitals strive to fulfill their mission while maintaining their margin. They cope with workforce shortages and scarce resources amid rising competition and demand for services. They routinely grapple with issues related to capacity and access to care, patient safety, technology adoption, staff satisfaction, reimbursement, and retaining top talent.
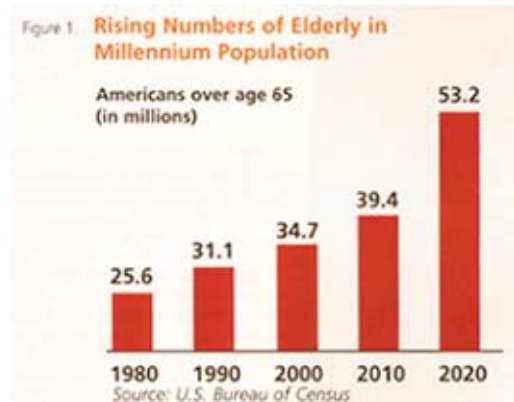
The industry's vital signs are raising red flags. We don't need another survey to confirm what we already know: healthcare delivery is overdue for a major renovation. New management models and strategies must be adopted that will:

- Enable quick, sustainable results around immediate issues
- Equip teams with solid problem-solving skills and proven best practices
- Empower the organization with a framework that seamlessly aligns process improvement, performance, strategy and management systems

Is this an impossible mission? Can we overturn a century of tradition in terms of workflow, culture, financial management and the assurance of quality? Can we speed up the process of change and effectively spread the gains across an entire service line, hospital, or integrated delivery network?

*Perhaps the question should be – can we afford not to?*

The need for large-scale change isn't going away. Patients continue to leave overcrowded emergency rooms without being seen. Medical and technological advances continue to outpace the required adjustments in process and education. An aging and better-informed populace places higher expectations and added strain on the system. An unacceptable percentage of revenue continues to slip through the cracks of a fractured charge capture system. In addition, although we have made some gains in reducing medical errors, recent reports underscore lingering problems with the quality of patient care.



Figure 1. **Rising Numbers of Elderly in Millennium Population**

Americans over age 65 (in millions)

| 1980 | 1990 | 2000 | 2010 | 2020 |
|------|------|------|------|------|
| 25.6 | 31.1 | 34.7 | 39.4 | 53.2 |

Source: U.S. Bureau of Census

And to top it off, healthcare providers are increasingly finding themselves in the unfamiliar and in some cases untenable position of having to compete – for physicians, staff, patients, resources and dollars. To achieve added recognition and

differentiation within their market space, a growing number of providers are actively vying for awards and coveted spots on top 100 lists.

In this competitive and complex environment, average performance in terms of both quality and financial indicators is no longer enough to ensure long-term viability. It is admittedly tough to manage through turbulent times. But if we can't stay ahead of the game now, how will we address new complexities as we expand further into areas such as digitization and personalized medicine? The answers—like the issues—are multifaceted.

Many are now calling for widespread adoption of information technology to save our nation's health system. While a necessary and critical step forward, the push for interoperability and IT implementation represents only a partial answer. Setbacks suffered by prominent health systems underscores the fact that simply overlaying 21st century technologies on top of 20th century workflow will not automatically yield the anticipated cost, quality and efficiency benefits. Hospitals must also redesign processes and address the human side of change.

New technology, clinical breakthroughs and digitization will only carry us part of the way on our journey. And real transformation isn't about turning the keys over to high-priced consulting firms that "specialize" in everything from software to investment banking and leave you with voluminous reports rather than results. It will take more than an edict from the board or a mandate from regulators. It's not about hiring a herd of new MBAs to replace your current department managers and clinical leaders.

*So what will it take to transform healthcare? Can we really get there from here?*

Solving today's problems and ensuring a viable system for the future will require a fundamental shift in mindset and management models. It will take the combined power of proven best practices, evidence-based process control, change management techniques and leadership strategies.

And it will take a guide who has traversed the territory, knows the obstacles and can customize

a roadmap to reach your destination. Evidence compiled through our extensive work with healthcare providers over the years suggests we can build such a framework to achieve long-term transformation.

For those ready to take the lead in shaping a stronger health system for the future, this paper offers a closer look at some of the challenges, solutions and real-world examples of success.

**The 'Perfect Storm'**
The winds of change in healthcare have been gathering for some time. They are being driven by a confluence of concerns that some have dubbed a "perfect storm":

- **Patient safety and clinical quality:** The emphasis on quality on patient safety has not abated since the release of the 1999 Institute of Medicine report on medical errors. Recent studies shine an even harsher light on a system that allows nearly 200,000 people to die needlessly each year.

- **Demographic changes:** Shifting demographics and an aging population will continue to impact healthcare, particularly for specialties such as cardiovascular services. The healthcare workforce is also aging, with only 9.1% of all RNs under the age of 30. Currently, the average age of the RN population in the United States is 45.2 years.

- **Rapidly changing technologies and treatment:** Medical advances that offer hope to critically ill patients, may present headaches to providers— at least for those ill prepared to cope with change. Implementing new technologies and treatment methods will require attention to systemic deficiencies, process variability and the human side of change.

- **The digital transition:** The push to adopt PACS and IT systems continues, as patient care settings increasingly seek the efficiencies and quality benefits of going "filmless and paperless". To succeed, this migration must be accompanied by process adaptation and change management techniques that foster acceptance and accelerate the time to benefit realization.

- **Workforce issues:** Workforce shortages remain a potential threat to the system. A 2004 survey by ACHE found that more than 59% of all U.S. hospitals cite capacity and staffing shortages as serious issues. To mitigate this situation, hospitals must take steps to optimize workflow, while creating an environment where satisfaction and a sense of excellence can reign.

- **Financial challenges:** Healthcare providers continue to feel financial pressures as they deal with rising demand and uncertainty in reimbursement and revenue collection. Projects that address revenue and cost management strategies will be crucial to maintaining quality services.

- **Rising consumerism:** For patients and families seeking the best possible care, the choices are expanding and transparency is becoming non-negotiable. With greater access to comparative information than ever before, patients are quickly becoming savvy consumers. Some are beginning to venture beyond their community hospitals in search of shorter waiting times, better outcomes and the latest technologies.

- **Leadership challenges:** A majority of healthcare executives concedes two conflicting points regarding leadership development in healthcare: 1) it is very important to the strength and stability of the organization, and 2) they don't do it very well. It's not really their fault, though. Most healthcare organizations lack the inherent infrastructure and internal capabilities to effectively align, measure and manage individual performance.

Healthcare leaders often feel they are in the eye of this 'perfect storm' as they face such issues on a daily basis. Unfortunately, they don't have the luxury of handling them one at a time. They need a holistic approach that targets not only near-term needs and delivers rapid results, but also provides a strong foundation for future success. Some healthcare organizations have already led the way in this regard, and are now becoming recognized as providers and employers of choice.

## Overcoming Barriers to Change

Healthcare has certainly not been a stranger to improvement initiatives. Over the past two decades, the industry has seen a parade of programs, including reengineering, benchmarking, systems thinking, TQM (Total Quality Management), CQI (Continuous Quality Improvement) and a host of others. So why haven't these well-intentioned efforts been more successful?

> **"The medical community now knows what it needs to do to deal with the problem. It just has to overcome the barriers to doing it."**
>
> –Lucian Leape
> Harvard's School of Public Health

The short answer is that change is hard. It can be especially difficult to drive change within the healthcare environment, where invisible obstacles often thwart the good intentions of talented and caring people. They may be caught in turf battles, stuck in departmental silos, or lost in communication gaps that are never adequately filled.

Perhaps the front-end planning and communication aspects of past change initiatives failed to receive enough attention. In some cases, a sense of balance may have been lacking – for instance, applying aggressive cost reduction efforts that inadvertently caused problems with quality or staff satisfaction.

While the short answer is that change is hard, the longer answer is that there may be many underlying factors hindering the resolution of long-standing issues in healthcare. Based on GE's experience with thousands of hospitals and health systems, however, we will focus on the top three culprits that can potentially sabotage the best laid plans—culture, alignment and control.

### Barrier #1: Culture

Numerous studies have shown that 50-80% of all major change initiatives are doomed to fail – often due to collisions with unseen cultural barriers. It's a pattern repeated across many organizations and industries. Senior leadership may believe they

have identified the best technical solution and have diligently compared features, benefits and costs. But whether that solution involves a new piece of equipment, a software program or a quality improvement initiative, there is one vital element of the equation that executives overlook at their peril – acceptance.

The superiority of the technical side of your equation won't matter, if you haven't proactively addressed the human side. For instance, staff and clinicians may be hesitant to participate in projects due to a historical emphasis on blaming people rather than fixing broken processes. Resistance could be coming from a senior leader or physician who views the latest change initiative as simply the 'flavor of the month'. They assume—probably based on past history—that if they wait long enough, "this too shall pass."

In other cases, you may have a clash of cultures or misaligned incentives due to a merger or even notable differences among stakeholders within a single hospital or system. For example, a variety of concerns and perspectives may stem from issues related to union versus non-union teams, academic versus non-teaching facilities, and even clinical staff versus physicians not directly employed by your institution. You must carefully consider all of these factors when introducing a new performance improvement initiative, and develop a plan to gain widespread consensus.

Cultural challenges can arise from an internal hierarchy and traditional structure that unintentionally encourages people to stay within their silos. When mapping the process of a typical patient's care from door to discharge, however,

you can easily see that the path crosses many boundaries and involves multiple caregivers. As pointed out in recent books such as Complications and Internal Bleeding, every handoff and interaction within the healthcare delivery system presents an opportunity for an error to occur – especially if communication is faulty or the process flow is poorly designed.

Barriers involving human interaction can feel intractable at times. But whatever the situation in your own environment, cultural issues can be overcome if they are dealt with up front using the right change management and facilitation techniques. In fact, by applying common-sense strategies, we have actually seen resisters and skeptics become enthusiastic supporters. Partnering with an objective and credible third party organization can also be an effective way to bridge the divide, while getting quick results in key areas.

*Barrier #2: Alignment and Accountability*

In some cases, an organization may have the right tools and the right people in place, but they may not have sufficiently aligned their improvement initiatives with the strategic plan or overall goals of the organization.

In some healthcare organizations, there is no real alignment because improvement efforts are scattered across the system, without a shared framework and a centralized selection and scoping process based on valid data. In the interest of appeasing disparate stakeholders, senior executives may allow a wide variety of improvement tools and techniques. While there are a number of complementary solutions that can be quite effective, experience has shown that adopting a common language and toolset across the organization can yield greater results in a much shorter time span.

In other facilities, the hospital may relegate process improvement efforts to the quality department or a lone risk manager instead of assigning enterprise-wide ownership and appropriate leadership support. Management must assume responsibility for linking all improvement projects to the primary areas of focus as identified through clearly articulated mission and vision statements.

It is also important to provide the right management infrastructure. The hospital should design systems that drive accountability and measurable results, supporting the organization's top 'line of sight' goals. Experience has shown that the level of performance rises significantly when people know exactly what is expected of them, how their job is linked to the organization's top priorities and that they are responsible for delivering certain results that will be measured on an ongoing basis.

The last piece related to driving alignment and accountability is to make sure you consistently recognize, reward and celebrate your team's success. This probably seems intuitive, but it's easy for leaders and organizations to get bogged down with daily challenges and overlook this important aspect of building and motivating a team.

*Barrier #3: Control*

Setting your organization on the right track with the right tools is one thing – staying on track is often a more formidable challenge. Using traditional improvement methods, some organizations may have seen initial success targeting isolated cost and quality issues, only to find that benefits they achieved began to unravel over time.

This is actually a familiar syndrome, since the concept of control has been one of the key ingredients missing from past improvement initiatives in healthcare. You may be able to relate to this scenario: a team tackles a project to improve a particular process in the operating room. Data is collected, changes are put in place, results are measured, and victory is declared!

With the project "completed", the team then moves on to other issues, satisfied with their results. Six months later, however, the same problem starts to mysteriously resurface. The manager calls for yet another meeting and another plan to fix the problem. It's not unusual – hospital teams waste valuable time repeatedly tackling the same issues without reaching a successful conclusion.

To avoid this frustrating cycle of "gain and wane", it is necessary to establish a valid mechanism for monitoring results once the issues have been carefully analyzed and improvements are put in place. Key indicators or metrics from individual projects can be incorporated into dashboards or balanced scorecards. This establishes long-term control, and provides the executive team with a current, high-level view on the overall health of the organization.

In addition to formal monitoring mechanisms, control also requires maintaining enthusiasm and commitment across the organization. Keep the team engaged and on-board through a plan that makes sure results are visible, contributions are recognized and the positive impact on patients is acknowledged.

To anyone who has attempted to manage a large-scale change initiative in healthcare, these barriers will undoubtedly sound very familiar. They can be overcome, however, with the right approach—one that addresses technical and cultural aspects of change, builds internal capabilities and provides clear oversight through strong management and measurement systems.

> **"While almost every other industry critical to the American economy has undergone some form of systematic, data-supported, quality-improvement process, health care is woefully behind the curve."**
>
> George C. Halvorson, chairman and CEO of Kaiser Foundation Health Plan Inc. and Kaiser Foundation Hospitals InformationWeek. – Jan. 31, 2005

It definitely takes leadership and vision to ignite transformation, but there are other critical ingredients and steps that must be considered as well. As evidenced by an increasing push toward public reporting, genuine **transformation in healthcare won't happen without transparency**. And because healthcare hasn't yet shed its traditional "blame and shame" approach to dealing with serious issues, **transparency can't happen without culture change**. And finally, **culture change won't happen without a bold vision, a common toolset and unwavering commitment**.

This is admittedly a tall order. But the healthcare organizations that have actually managed to achieve and sustain such a system-wide transformation are proof that it is possible. Why did they succeed where others have failed? How were they able to beat the odds and meet their objectives? What enabled them to create an environment that encourages excellence at all levels of the organization? Even more importantly, how were they able to maintain results over time, instead of watching them unravel as so many past efforts have done?

**A Framework for Transformation**
As stated earlier, any transformation must begin with a vision. Most executive teams have already crafted a mission statement and usually have a clear vision as to where they want to take their organizations.

The CEO may have the right direction and goals in mind. But the real challenge is in translating the overall vision into well-defined actions and measurable results. Healthcare executives often find that it is especially difficult to enact their vision when it involves confronting intractable issues, removing cultural barriers and fundamentally changing the way people work and interact on a daily basis.

Most industry leaders are not overnight sensations. It takes hard work, perseverance, vision and the capacity for change. During the 80's and 90's, General Electric faced challenges
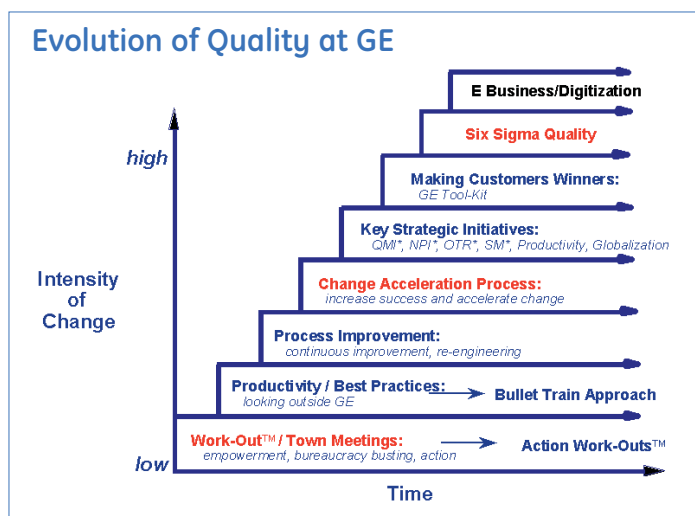
**10 Keys to Successful Transformation**
1. **Define a vision** for the future and know your current state by analyzing market, culture, technology, community needs and opportunities for improvement.

2. **Develop a communication plan** to reach all levels of the organization.

3. **Visibly champion the cause** showing strong leadership involvement and support.

4. **Build internal skills** to solve problems and lead change efforts.

5. **Seek early, measurable wins** to build momentum, overcome skepticism and encourage participation.

6. **Take a balanced, holistic approach** to ensure gains in one area don't cause problems in another.

7. **Reach out and learn from others** who have embarked on similar initiatives – whether inside or outside your industry.

8. **Establish alignment and accountability** by linking major goals and core business metrics to projects and performance.

9. **Create monitoring mechanisms** to ensure results are maintained.

10. **Recognize, reward and celebrate success** on a regular basis!

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"In addition to better process control, we're focusing more on people issues now—driving accountability and putting more structure around our ideas."

–Richard P. Miller, President and CEO Virtua Health, New Jersey

similar to those confronting healthcare and other industries, and went through a series of transitions in order to strengthen the organization. To facilitate a transformation that has been widely recognized as successful. GE developed and adopted several new strategies.

## Evolution of Quality at GE



The above graphic illustrates the various phases of change and the journey toward excellence that GE is continuing to pursue:

The tools helped the business realize its vision and have been proven to work over time. Responding to customer requests for assistance in the late 1990s, GE's Performance Solutions group began taking this approach to healthcare providers. Leveraging tools to drive cultural acceptance, improve processes and strengthen business results, hospitals have been able to make impressive gains.

Developing a sustainable framework for transformation in healthcare requires a comprehensive approach based on delivering targeted results, acquiring skills and adapting new management systems:

**Deliver quick results through focused projects:**
To build momentum for change, it is important to demonstrate early, tangible results in one or more key areas. Outside experts can lead the way, while introducing staff to new concepts for tackling common problems. Projects should provide measurable financial, quality and/or productivity benefits. With the right guidance, such an initiative can pay for itself many times over, and spark a movement toward broader transformation.

**Acquire internal capability and best practices:**
While impressive results can be seen from a single project targeting an issue such as patient wait time or radiology throughput, acquiring strong problem-solving skills internally will help you drive the effort forward and spread the gains.

Empowering staff, clinicians and leaders with a common set of problem-solving skills will ultimately enable them to drive their own clinical and operational improvement efforts.

**Adapt systems to manage and sustain success:**
To expand the benefits and help any improvement initiative take root within an organization, it is essential to provide supportive management and leadership systems. Such a system usually includes a well-defined operating calendar, along with consistent methods for evaluating, developing and rewarding top performers. When implemented appropriately, this approach clearly connects individual initiatives to the organization's strategic plan.

**Deliver quick results through focused projects**
Across the healthcare enterprise, opportunities abound for improving efficiency, service quality and the bottom line. Here is a look at some of the specific areas and issues within healthcare that can be positively impacted through focused projects:

*Perioperative Services*
The perioperative environment is one of the most challenging and complex areas for hospitals to manage. Executives must balance competing priorities in order to ensure quality care, maintain surgeon satisfaction and effectively manage resources.

These responsibilities are often complicated by a lack of visibility to the intricacies involved with surgical services. Within this challenging area, Performance Solutions enables customers to:

- Identify underlying system issues that drive concerns
- Improve throughput across PreOp, OR and PACU
- Develop the best schedule to manage elective demand and add-ons
- Establish the right resource mix per case per room
- Reduce delays while improving efficiency, safety and accuracy

## Emergency Services

Hospital emergency departments are under mounting pressure to meet rising patient demand while coping with overcrowding, ambulance diversions, resource issues and an unpredictable patient flow. A lack of inpatient bed capacity puts added strain on the system, causing ED's to hold patients while they await transfer. To address such critical challenges, Performance Solutions collaborates with customers to:

- Develop a strategic roadmap for achieving desired ED functionality

- Evaluate patient lengths of stays and "leave without being seen" instances

- Evaluate patient types; urgent, emergent and non-urgent

- Assess physician referrals to obtain indicators of deterrents and attractors

- Streamline workflow through process mapping

- Apply Lean Six Sigma to improve scheduling and workforce leveling issues

## Imaging Services

Radiologists today must cope simultaneously with rising competition, declining reimbursement and budget constraints, staffing shortages, technology changes and service issues. Tackling such challenges and consistently meeting increased demand for timely, high-quality care can be difficult without the right management tools and guidance. Leveraging extensive radiology experience, Performance Solutions helps to:

- Benchmark current performance and prioritize opportunities

- Assess existing equipment inventory and develop strategic roadmap

- Improve equipment utilization and capacity

- Link local market dynamics to technology investment decisions

- Optimize workflow to improve capacity and reduce delays

- Expand knowledge and skills to fully leverage clinical applications

## Cardiology Services

As the cost of cardiovascular disease in the U.S. approaches $4 billion annually, this critical service line represents a rapidly expanding and highly competitive environment. Advancing technologies, workforce issues, process inefficiencies, declining reimbursement and rising competition can all have a profound impact on quality, satisfaction and the bottom line. To mitigate the challenges, Performance Solutions takes a collaborative, evidence-based approach to help customers:

- Develop a strategic roadmap for achieving desired CVIT functionality

- Develop high level plans for technology implementation

- Redesign processes and optimize workflow around patients, staff, and data

- Create effective models for staffing, scheduling and case management

- Create and validate dashboards to monitor progress

- Enhance department strategy and growth

## Revenue Cycle

Many hospitals today – even those at "benchmark" performance – struggle to adequately manage the revenue cycle amid complex payer requirements. Beyond the known leakage, there are hidden "x factors" that contribute to a total loss of 8-18% of annual net revenue – or $3.5m to $6.6m for the average hospital. Leveraging proven best practices, Performance Solutions helps customers to:

- Improve access and billing processes to reduce denials

- Reduce bad debt write-offs

- Improve outpatient revenue capture

- Increase billing efficiency and productivity

- Establish accountability for long-term results

## PACS (Picture Archiving and Communications Systems)

As hospitals seek to implement PACS, challenges may arise that slow the migration and delay the full benefits of replacing film with digital imaging.

Hospitals frequently find they lack sufficient time, internal resources, experience or change management techniques required to effectively redesign workflow and gain staff acceptance. Avoiding common barriers, Performance Solutions helps customers to:

- Assess current situation and readiness for change

- Gain physician and staff acceptance

- Redesign workflow to meet customer needs

- Acquire best practices for managing change

- Fully leverage the functionality and benefits of the system

- Realize a faster return on investment

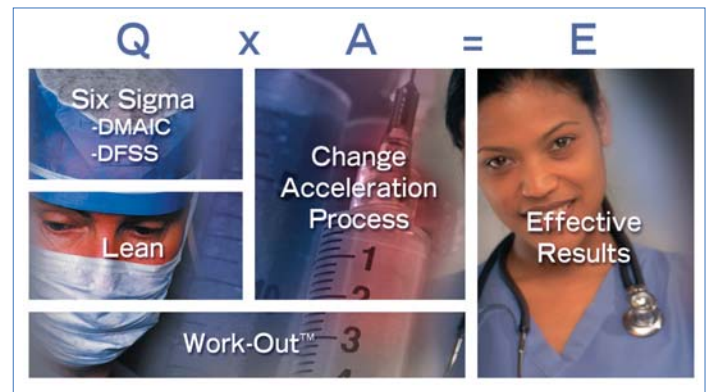## Acquire internal capability and best practices

*Process Improvement and Change Management Methods*

GE's Performance Solutions group relies on a proven set of tools and techniques, both to guide the professional services they deliver directly through clinical and operational engagements, and as a robust toolset acquired by customers through project-based education and mentoring.

> "Achieving zero defects in health care has to be the goal. I really believe we can do it."
>
> Martin Merry, MD
> University of New Hampshire

The graphic below illustrates how the tools support an overall premise regarding process improvement. The equation Q x A = E means that the Quality of your solution times its Acceptance will equal the Effectiveness of your Results. As mentioned earlier, it is this sense of balance within improvement initiatives that can spell the difference between failure and long-term success.



Methods such as Lean, Six Sigma, Change Acceleration Process (CAP) and Work-Out are complementary elements within the toolkit and can be used throughout the healthcare enterprise to drive results.

### Change Acceleration Process (CAP)

In the quest to transform healthcare, the importance of culture and human behavior cannot be over-emphasized. Some have learned the hard way that just because they have valid statistics on their side, does not mean everyone will immediately embrace the proposed solution.

Change Acceleration Process or CAP is an essential part of the toolkit for analyzing and overcoming sources of resistance. Developed at GE in the 1980s, CAP is a change management strategy that provides a structured framework and a comprehensive set of tools to quickly mobilize teams and generate enthusiasm. This strategy helps organizations to:

- Overcome resistance to change

- Develop a common language and toolkit for successful change management

- Build leadership and change facilitation skills

- Establish organizational alignment

- Apply CAP tools and methods to clinical and administrative projects
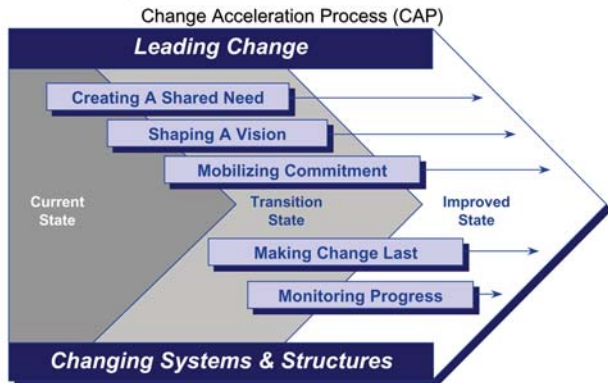
For any initiative to succeed, it's important to develop an action plan that builds broad support and participation. The CAP model enables the team to not only accelerate the pace of change, but also make it last.

## Sustaining Results with CAP



### Change Acceleration Process (CAP)

Leading Change
- Creating A Shared Need
- Shaping A Vision
- Mobilizing Commitment
- Making Change Last
- Monitoring Progress

Current State · Transition State · Improved State

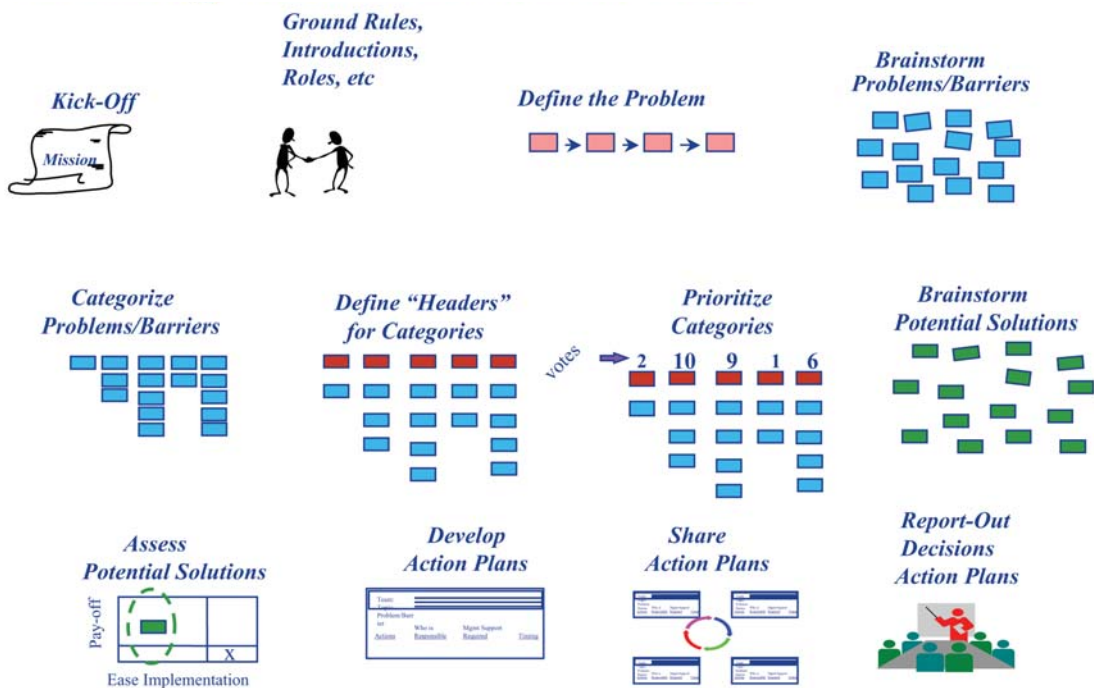Changing Systems & Structures

*Work-Out™*

Work-Out was developed at GE to "bust bureaucracy" and improve the decision-making process. Using a structured problem-solving approach and facilitation tools, a team is empowered to develop solutions and ensure completion of action plans. The graphic below illustrates some of the steps and tools involved with leading a successful Work-Out session.

There are a number of beneficial by-products of Work-Out, including breaking down barriers in an institution by developing cross-functional teams and creating a culture that can address issues and implement solutions.

# Work-Out™



Kick-Off — Mission

Ground Rules, Introductions, Roles, etc

Define the Problem

Brainstorm Problems/Barriers

Categorize Problems/Barriers

Define "Headers" for Categories

Prioritize Categories — votes — 2  10  9  1  6

Brainstorm Potential Solutions

Assess Potential Solutions — Pay-off / Ease Implementation

Develop Action Plans

Share Action Plans

Report-Out Decisions Action Plans

### Use Work-Out to:
- Eliminate unnecessary work
- Identify quick hits
- Build momentum
- Make on the spot decisions
- Empower employees
- Open up communication and dialogue
- Improve interfaces and remove barriers
- Identify new-way ideas

### Work-Out is not appropriate for...
- Routine communication meetings
- Issues over which participants have no control or don't feel strongly about
- Technical issues or problems requiring complex analysis, rigorous problem-solving methodology or considerable data collection/analysis

## Lean

Familiarity and habit can sometimes protect flaws in the system. For example, when examining a particular process in a hospital to find out why it involves 78 steps when only 22 of them are really necessary, a common response seems to be 'I'm not sure why, but this is the way we've always done it'.

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**The Seven Types of Waste**

Processing
Waiting        ⎫ People
Motion

Inventory
Moving Things   ⎫ Quantity
Overproduction

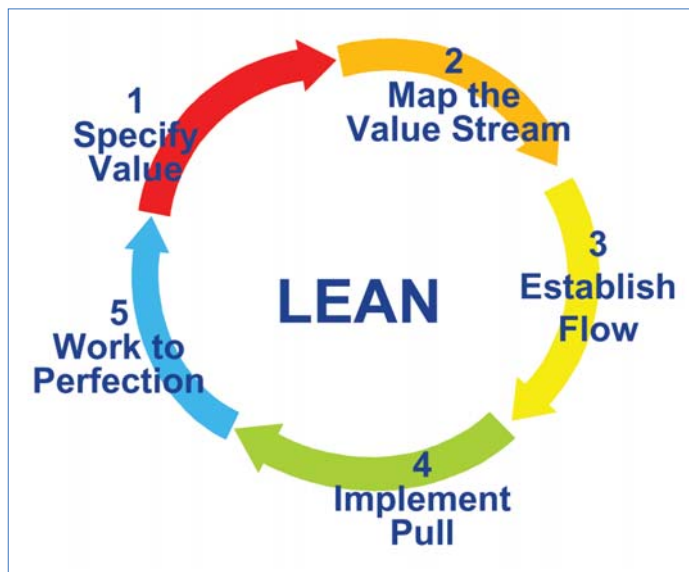Defects/Inspection ⎤ Quality

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Lean utilizes a unique set of tools to streamline processes and eliminate unnecessary steps. Lean puts waste into seven categories that are further divided into subgroups of People, Quantity, and Quality. The Seven Types of waste are a simple way to think about non-value added tasks.

Within healthcare, Lean seeks to meet customer needs by reducing process complexity and redundancy so that patients move more easily through the system and caregivers have more time to spend at the bedside.

### Lean Process

1. **Specify value:** Define value from the customer's perspective and express value in terms of a specific product

2. **Map the value stream:** Map all of the steps...value added & non-value added...that bring a product of service to the customer

3. **Establish flow:** The continuous movement of products, services and information from end to end through the process

4. **Implement pull:** Nothing is done by the upstream process until the downstream customer signals the need

5. **Work to perfection:** The complete elimination of waste so all activities create value for the customer
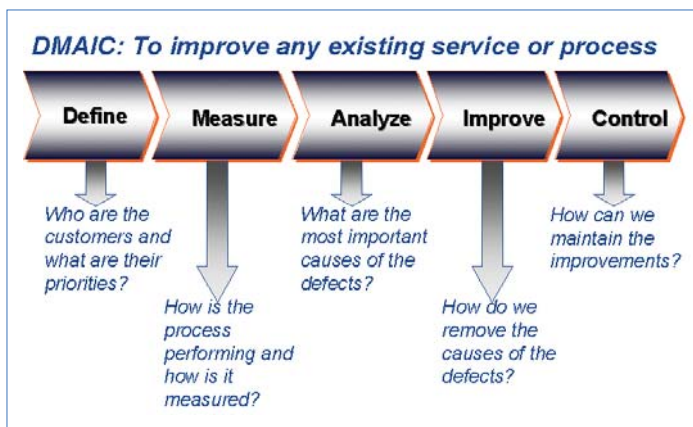


### Six Sigma

Six Sigma is a rigorous, statistical approach to problem solving designed to reduce variation and defects. "Sigma" is another word for standard deviation. "Six" refers to the level of defects per million opportunities – the higher the number, the fewer the defects. Moving from a 3 to 6 represents a 20,000 times improvement.

The meaning of Six Sigma has evolved since the methodology originated at Motorola two decades ago. It now encompasses not only reducing defects, but is also considered to be part of a broader business strategy for increasing process efficiency, raising customer satisfaction, protecting quality and improving the bottom line. There are two basic underlying approaches to Six Sigma – DMAIC is used to improve existing processes, and DFSS or DMADV is used to design new processes.

| $\sigma$ | Defects Per Million Opportunities |
|---|---|
| 1 | 697,672.15 |
| 2 | 308,770.21 |
| 3 | 66,810.63 |
| 4 | 6,209.70 |
| 5 | 232.67 |
| 6 | 3.40 |

**DMAIC: To improve any existing service or process**

Define → Measure → Analyze → Improve → Control

- Who are the customers and what are their priorities?
- How is the process performing and how is it measured?
- What are the most important causes of the defects?
- How do we remove the causes of the defects?
- How can we maintain the improvements?

Applying Six Sigma and Lean across GE since the early 1990's, the company has saved billions of dollars while improving the quality of their products and services. Within healthcare, Six Sigma addresses many common challenges including clinical quality, technology optimization, resource utilization, length of stay and throughput.

*Integrating tools and techniques*

Driving significant, sustainable results in healthcare is not about training, and it's not even just about the individual tools themselves. It's about changing the culture and developing enough experience to know which tool to apply to each issue. The graphic below illustrates a series of integrated steps or phases that help to build a strong framework and lead to long-term results:

Desired state vision → Change management → Solution development → Team skill expansion → Monitor and maintain results

There are a number of tools and proven best practices that healthcare organizations can leverage to drive sustainable results. Some problems may require the rigor of Six Sigma or Lean, while others may simply be a matter of making a decision, with many variations in between. Similar to the concept of giving the right care to the right patient at the right time, the well-trained organization will know which tool should be applied to each problem-solving opportunity.

## Management and Leadership Systems

Even the best improvement methods or strategic plans can suffer from a lack of institutional structure and support. If the organization's goals, values and vision are not clearly linked to measurable outcomes, it will be difficult to manage performance or chart a course for the future.

> **"The first principle for a great and good company is to set very high standards for performance."**
>
> –Jeff Immelt
> Chairman and CEO, GE

Focusing on management and leadership systems as a foundation for transforming the delivery of patient care, GE Healthcare's Performance Solutions group partners with healthcare providers to address:

- Strategic planning
- Performance evaluation
- Initiatives and values
- Succession planning
- Leadership skills
- Learning Lean Six Sigma

Healthcare executives consistently report that developing leaders is very important to their success, but they also admit the industry lags in this regard. Hospitals also usually have a mission statement and vision statement posted on their web sites, written on internal documents and perhaps posted in the lobby. But they are frequently lifeless—not tethered to real actions and measurable results.

Adapting GE's renowned management and leadership systems, Performance Solutions empowers healthcare providers to connect the dots – between vision and results; process improvement and patient satisfaction, strategic objectives and clinical outcomes. We help unleash your organization's power to perform and succeed in a competitive environment.

## What Leaders Do

1. Leaders relentlessly upgrade their team, using every encounter as an opportunity to evaluate, coach, and build self-confidence.

2. Leaders make sure people not only see the vision, they live and breathe it.

3. Leaders get into everyone's skin, exuding positive energy and optimism.

4. Leaders establish trust with candor, transparency, and credit.

5. Leaders have the courage to make unpopular decisions and gut calls.

6. Leaders probe and push with a curiosity that borders on skepticism, making sure their questions are answered with action.

7. Leaders inspire risk taking and learning by setting the example.

–Jack Welch
Excerpt from "Winning"

A strong management system is key to achieving successful process improvement initiatives, and ultimately to transforming the enterprise itself. As illustrated in the graphic, the GE Management System involves Values, Initiatives, and the Operating Calendar.

- **Values** define the organization and are clearly linked to behavior

- **Initiatives** embody the imperatives of the organization

- The **Operating Calendar** is a series of structured, executive-driven sessions connecting people, strategy and vision
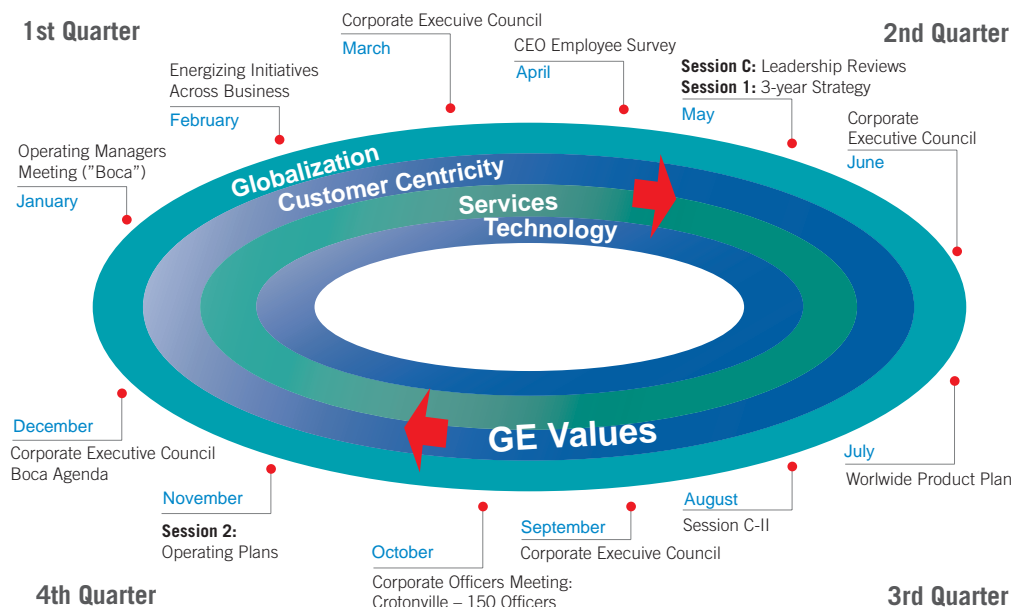
### Beginning the Journey

Every healthcare organization has certain distinct requirements and readiness factors they must consider when planning major change initiatives. While it's impossible to write a generic prescription, an effective and customized plan can be developed that incorporates proven strategies and meets the needs of the organization.

To begin this journey, the organization can follow a couple of basic paths. One involves a CEO led, top-down transformation that begins with an articulation of the vision and 30,000-foot plan to achieve it. With the right leadership, this approach can deliver a well-orchestrated plan that permeates the organization's culture.

The second path begins by targeting department-level issues in order to realize rapid results, convert skeptics and demonstrate that achieving excellence



## The GE Management System

**1st Quarter**

Energizing Initiatives Across Business
**February**

Operating Managers Meeting ("Boca")
**January**

Corporate Executive Council
**March**

CEO Employee Survey
**April**

**2nd Quarter**

**Session C:** Leadership Reviews
**Session 1:** 3-year Strategy
**May**

Corporate Executive Council
**June**

Globalization
Customer Centricity
Services
Technology

**GE Values**

**December**
Corporate Executive Council Boca Agenda

**November**
**Session 2:** Operating Plans

**4th Quarter**

**October**
Corporate Officers Meeting: Crotonville – 150 Officers

**September**
Corporate Executive Council

**August**
Session C-II

**July**
Worlwide Product Plan

**3rd Quarter**

in healthcare is possible. Once proof has been established, the approach can be spread to other areas of the system until support flourishes and the culture begins to change.

To achieve long-term success, both paths will be supported by education and skills transfer to build organizational capabilities and autonomy over time. Either path will allow you to build sound operating systems and create a high-performing culture able to tackle today's toughest issues while preparing for a promising future.

Regardless of the starting point, developing an overall framework that seeks to align strategy, goals and performance will help to build a culture of excellence and sustained success. Taking this type of balanced approach to performance improvement can deliver consistent, measurable results for the healthcare organization and create a better environment for patients.

## Summary

Transformation is a journey rather than a destination, and every journey begins with a single step. The path and pace you choose will depend largely on your immediate needs and organizational readiness for change. Regardless of where you start, it's important to have a vision of the overall framework in mind.

> "We have a lot more clarity now and we're getting people to understand the word 'accountability'. Everyone has a clear idea of what is important and what is expected."
>
> Glenn Fosdick
> CEO, Nebraska Health System

Reaching new levels of excellence goes beyond training or tools. It requires becoming both a learning and a teaching organization – one that is disciplined enough to consistently deliver results, yet agile enough to shift gears when necessary.

At the very least, we should make sure that whatever we're doing adds real value for patients. Improving their experience should be central, whether introducing a new technology, streamlining the surgical suite or eliminating redundant paperwork so a caregiver can spend more time at the bedside.

Adherence to the status quo is no longer an option. As the public increasingly gains access to clinical outcomes and patient satisfaction data, hospitals will have to address the gaps or find themselves on the defensive.

And while we're grappling with today's challenges, tomorrow isn't far off. With revolutionary advances and the promise of personalized medicine on the horizon, healthcare stands on the threshold of a bright future – if the right infrastructure can be put in place to support it. We cannot afford to be immobilized by systemic inadequacies or cultural barriers.

Converting healthcare's tough issues and obstacles into opportunities and long-term results isn't impossible. But we must start by acknowledging current gaps and leading the way toward genuine transformation. It is a journey that must begin now.

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