

***SIX SIGMA IN HOSPITAL
AND
HEALTH CARE MANAGEMENT***

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INTRODUCTION

Competition in health care sector are forcing healthcare organizations to look for new ways and means for improving their processes. This for improving quality of hospital's products and services and reducing patient dissatisfaction

“To reduce the errors and to move towards perfection as well as improve patient satisfaction”

WHAT IS SIX SIGMA

Six sigma simply means “ ***a measure of quality that strives for perfection***”

“A *quality improvement methodology* that applies statistics to measure and reduce variation in processes.”

It is an organizational philosophy in establishing the belief of ‘doing things right, first time and every time’

FEATURES

- ❑ The term six sigma means standard deviation
- ❑ Six sigma requires commitment from the whole organization
- ❑ Six sigma health care organizations have the ability to reduce the medical errors and getting things done faster
- ❑ It is customer focused and raises performance at breakthrough level
- ❑ The target for perfection is the achievement of no more than 3.4 defects per million .

HOW AND WHEN TO USE IT

- Understand who your consumers are and what your service is.
- Review consumer surveys, concession reports and other data.
- Screen and priorities issues by severity, frequently/like hood of occurrence etc.
- Determine the internal processes causing the most dissatisfaction and pain
- Find out why and where the defects are occurring
- Devise ways to address these defects effectively
- Set up good metrics
- Phases of six sigma

There are six phases of six sigma

- Establish management commitment.
- Business diagnostics
- Develop the management infrastructure.
- Business process identification and metrics
- Project selection
- Deployment-training, project execution and review
- Training centres

STEPS IN SIX SIGMA METHODOLOGY (DMAIC)



MAIN PLAYERS



Champions/Sponsors: champions are high-level individuals who understand six sigma and are committed to its success. Sponsors are the owners of processes and systems who help initiate and co-ordinate Six sigma improvement activities in their areas of responsibilities.



Master Black Belts: A vital role as a leader, coach, mentor and strategic business planner. MBB needs a variety of skills and information. An MBB teaches other sigma students and helps them achieve Green Belt and Black Belt.



Black Belts: Person that is part of the leadership structure for the process improvement team called “Black Belt”. Highly regarded personnel who have the ability to lead teams.









Green Belts: Person trained in six sigma methodology and is a team member of a six sigma process improvement action team.

How is six sigma different







The Classical View of Quality

"99% Good" ($Z = 3.8\sigma$)

-  **20,000 lost articles of mail per hour**
-  **Unsafe drinking water almost 15 minutes each day**
-  **5,000 incorrect surgical operations per week**
-  **2 short or long landings at most major airports daily**
-  **200,000 wrong drug prescriptions each year**
-  **No electricity for almost 7 hours each month**

The Six Sigma View of Quality

"99.99966% Good" ($Z = 6\sigma$)

-  **Seven lost articles of mail per hour**
-  **One minute of unsafe drinking water every seven months**
-  **1.7 incorrect surgical operations per week**
-  **One short or long landing at most major airports every five years**
-  **68 wrong drug prescriptions each year**
-  **One hour without electricity every 34 years**

Most popular outcomes from six sigma

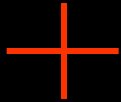
- Increased patient satisfaction and care
- Fewer complaints
- Increased prescription accuracy
- Reduced waiting time and variation
- Safer and more efficient emergency services
- Fewer medical errors defects
- Increased physician satisfaction
- Reduced cost and savings
- Better financial and higher annual savings
- Less rework waste

Keys to implementing Six Sigma in healthcare

- Gain leadership support and don't skimp on planning!
- Identify opportunities and define the value proposition
- Ensure strategic alignment with organizational objectives and incentives
- Develop a business case, identify team leaders and build a plan for deployment
- Establish measurements and evaluate performance
- Manage change through ongoing communication efforts
- Monitor results and sustain improvement through review and recognition

Six Sigma Scope in Hospital Services

Medical Operations



Administrative Operations

- Bed related Inpatient Functions
- Out patients related Functions
- Diagnostics and Treatment Functions
- Administrative Functions
- Research and Teaching Functions
- Supply Chain

Focus on Process Capability, Utilization, Cycle Time, Cost Optimization

SIX SIGMA CONVERSION TABLE

<u>S.I. No.</u>	<u>SIGMA Yield</u>	<u>Defect per million Opportunities (DPMO)</u>
1.	31.00 %	6,90,000
2.	69.20 %	3,08,000
3.	93.30 %	66,800
4.	99.40 %	6,210
5.	99.97 %	230
6.	99.99966 %	3.4

Formula of six sigma :

Quality (Q) X Acceptance (A) = EFFECTIVENESS (E)

A detailed illustration of a fantastical night scene. In the foreground, a large, ornate stone bridge with multiple arches spans a body of water. The bridge is constructed from dark, textured stone with intricate carvings. To the right, a tall, multi-tiered tower with a crenelated top stands prominently. A single window on one of the lower levels of the tower is illuminated from within, casting a warm yellow glow. The background features a dark, starry sky with a thin, white crescent moon in the upper left. On the left side, the dark, silhouetted branches of a tree are visible. In the distance, another smaller tower or structure is visible on the horizon. The overall atmosphere is mysterious and magical.

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THANK YOU

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