# **ABOUT SBTI**



Recognized as thought leaders and innovators in business process

Value Proposition

	improvements, Sigma Breakthrough Technologies Inc. (SBTI) is a global management consulting firm specializing in the deployment of Six Sigma and Lean methodologies. SBTI delivers innovative and sustainable business process excellence solutions by developing future leaders with core competencies to drive superior top and bottom line results. We advance our clients with best-in- class results in revenue growth, cost reduction, new product development and process improvement.
Focused on Healthcare	SBTI brings its considerable deployment history to bear on the healthcare industry. We've taken our experience with 70+ major deployments across various industries and modeled a program specifically for Healthcare. By executing dozens of projects and enlisting the expertise of healthcare professionals, SBTI has created the first complete portfolio of tailored process improvement solutions for Healthcare.
What We Provide	SBTI offers a full range of programs and services. These offerings include
	leadership workshops, asset maximization, strategic planning and assessments, multilevel managerial workshops and specialized "belt" training at the tactical level.
Results. Guaranteed.	SBTI delivers the fastest and highest return on investment in the industry. Always incorporating a measurement benchmark, most of our clients experience an average of 30X return on investment (ROI) within the first 24 months of engagement.
Global Resources	Throughout our history, SBTI has demonstrated a track record of quickly responding to clients' global needs. Our international offerings are handled through regional offices in Latin America, Europe and Asia. Materials are available in English, Spanish, Italian, French, German, Mandarin, Korean and Japanese. Others in process of being translated.
Our History	Dr. Stephen Zinkgraf, one of the original Six Sigma developers, founded SBTI in 1997. Beginning with two corporate clients, SBTI has grown to more than 70 global corporate deployments and more than 220 clients using SBTI methodology.
	SBTI Executive Directors and Master Consultants have a minimum of 10 years industry experience – some 25 or more. Our international offices provide the same unmatched experience and capabilities as in the states, while offering local language and bilingual instructors. All of SBTI's consultants have lead multiple waves of training, completed numerous projects and continually mentor Black Belts.



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From Start To Breakthrough

# **CASE STUDY**

**Event:** Kaizen Event

# **Industry:** Healthcare Client: Miami Hospital MTC

This study follows a kaizen event at the Minor Treatment Center in a Miami hospital's emergency department that addressed lengths of stay. Patients' average lengths of stay (ALOS) were reduced while maintaining or improving overall treatment effectiveness. Using this approach, the team reduced ALOS over 50% in just 4.5 days.

# **Reducing Average Length of Stay in Minor Treatment Center** by over 50 percent in 4.5 days.

The Minor Treatment Center (MTC) had historically been capacity constrained with long patient wait times. The situation was getting worse and the number of patients leaving without being seen was gradually increasing causing a loss



those admitted to the main hospital. The aim was to reduce the patient ALOS while maintaining or increasing treatment effectiveness.

# **Current State**

After a brief training introduction to lean tools, the team mapped the entire MTC process in detail using a Value Stream Map. This identified possible target areas of non-value added (NVA) activity. The team pointedly commented during the mapping that there appeared to be considerably more NVA than value-added (VA) activity in the process. The team took photographs of the MTC prior to making changes to highlight just how much had been achieved once the event was complete.



in revenue. Actual length of stay was anywhere from six hours to 36 hours. Prior to SBTI's engagement, the same process had already been the target of a Six Sigma project for nearly a year with only a 5% reduction in ALOS.

Using a team approach with representation from all stakeholders in the process, the event was led by a Charge Nurse and facilitated by a Sigma Breakthrough Technologies Inc. (SBTI) consultant following the kaizen roadmap (Current State, Concept & Detail Design, Implement, Refine & Control). The scope of the event was limited to only those patients discharged through the MTC and not

# **CASE STUDY**

## **Concept & Detail Design**

From the Value Stream Map the team identified a number of key areas to focus on:

- Layout of equipment and general housekeeping in the MTC
- Inconsistencies in the registration process during the day vs. night
- Patient travel to the MTC from the main entrance •
- Patient flow from the main entrance through ED Triage then back to ٠ the MTC
- Visibility of process flow
- Moving the discharge of patients out of the MTC to free up capacity
- Loss of vital Tech resource walking to the lab and back



Physicians' Work Area Prior to Changes



Other areas where changes were made.



busy Emergency Department at 2pm on a Wednesday afternoon and people

Giving Spectralink phones to

• A "Yellow Brick Road" guiding

line from the main entrance

Techs to prevent unneeded walks

realize it's serious!"

to the lab

Changes made included:

the MTC sooner • Re-inventorying the Omnicells

and Pyxis in the MTC to contain the most frequently used items and remove the slow moving, expensive items

## Making crash carts more accessible

## **Refine & Control**

Making improvements to a process is often straightforward; sustaining them is more difficult and is the key to a successful event. The team spent considerable time ensuring the correct metrics, roles, responsibilities and accountabilities were in place. All affected stakeholders were trained on the



Figure 2: Physician's Work Area Post-Changes





- Repaired MTC equipment and placed in more appropriate locations, while removing unused items
- Painted the MTC area
- Clairified triage instructions for the Meeters / Greeters to isolate MTC
  - patients before sending them through main ED Triage
- Standardized registration to be Fast Track 24 hours-a-day
- Reduced paper trail in the MTC to prevent hold-ups due to information flow

new process.

### General Results and Conclusions

By Day 4 of the event, the ALOS was dropping considerably. At the event report-out, the team proudly displayed an ALOS of 3 hours 04 minutes, a figure never seen before. The full implementation of changes continued for a full month after the event during which time the variability and the average, in-stay time was reduced. Three months later, the ALOS was stable at a further reduced level and remained below 3 hours for the majority of days.