

Tools For Healthcare Quality

Process Guru

Jay Arthur

Reveals Simple Tools
for Patient Flow and
Healthcare Quality

Developing a Lean Six Sigma Mindset

Lean Labs for Hospitals

Accelerating Patient Flow

Dashboards and Scorecards

Control Chart Wizardry

Lean Six Sigma

A Personal Message from Jay Arthur

Dear Healthcare Quality Leader,

When the healthcare community discovered the QI Macros Control Chart software for Excel, it took off like wildfire finding its way into thousands of hospitals.



Since then, I've had the opportunity to work with many hospitals around the country and I keep finding the same challenge—your quality improvement personnel become trapped in a monthly and annual cycle of graphing performance measures for JCAHO, CMS, IHI and so on. But they never have enough time to work on improving clinical and operational processes.

They're so busy charting performance that they don't have any time to improve it.

I've also noticed that while some hospitals have electronic medical records and tracking, most are still mired in paper records. This makes it hard to find, measure and improve patient flow and other clinical measures.

As an Excel geek, I've often found that I needed to create simple, easy-to-use data entry forms and tools in Excel to track the bare bones data we need to measure patient flow, lab turnaround times, housekeeping turnaround times, ED and nursing unit length of stay.

Maybe you are one of the lucky few that have good electronic medical records systems that time stamp every patient experience, but if you're not so lucky and your patients can't wait years for multimillion dollar investments in new technology, then our Excel-based length of stay, ED Whiteboard, bed management, CMS Core Measures dashboards and scorecards might be an

affordable solution to help you bridge the gap between pure paper and electronic medical records. If your process improvement personnel are tied up doing monthly charts and graphs, we can help create Excel-based tools that allow anyone (not just highly trained quality staff) to enter the monthly data and generate executive dashboards and scorecards of any performance measures. We've been doing this for clients around the country to measure everything from patient access to nursing performance. We've done everything from simple dashboards to massive rollups of entire healthcare systems.

We've also been conducting one-day Lean Six Sigma for Healthcare workshops that are designed to leave a working knowledge of Lean Six Sigma.

I've worked with hospital labs to use the tools of Lean to reduce travel in the lab by over 50% which accelerates results and reduces turnaround times.

From an operational and financial standpoint, I worked with teams that found ways to save millions of dollars in denied claims and reduce the time to resolve appealed claims. Since I left the phone company in 1996, I've helped other companies and hospitals find ways to simplify, streamline, and optimize their processes to add \$25,000, \$250,000 or more to the bottom line.

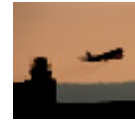
I'm a problem solver by nature and a toolsmith by trade. Excel can become a power tool for measuring and managing every aspect of healthcare delivery.

If you're open to it, this magazine is packed with insights and resources to accelerate your productivity, improve patient outcomes, and boost your bottom line.

Jay Arthur

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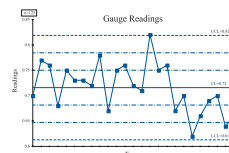
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Area	Target	Actual	Variance	Trend
1. Patient Satisfaction	95%	92%	-3%	Down
2. Hospital Readmission Rate	10%	12%	+2%	Up
3. Patient Safety	0%	0%	0%	Stable
4. Operational Efficiency	85%	88%	+3%	Up
5. Financial Performance	\$1M	\$1.1M	+\$100K	Up

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Are You Overlooking the Biggest Profit-Making & Patient Satisfaction Opportunity in Healthcare?

I'm willing to bet that your hospital or medical facility can be a lot more profitable than it is now. I've worked with businesses ranging in size from an independent muffler shop to hospitals to Fortune 50 companies. I've helped them save anywhere from \$25,000 to \$25 million that could be added to the bottom line. The process is simple, but almost every business overlooks this opportunity to bank more cash and boost the bottom line.

Every Business Has Two Sources of Cash Flow

Cash is the lifeblood of your business. Businesses are only as healthy as their cash flow. Every business has two sources of cash flow:

1. **External customers** (e.g., payors) give you money for your products and services. The traditional wisdom says that you need to sell more to more customers to increase your cash flow.
2. **Internal processes** are another source of cash because mistakes, errors, defects and delays make your business leak cash like a rusty bucket. Why are internal processes a source of cash? Because when you plug the leaks in your cash flow, you get to keep all that money!

I'd like you to consider that most businesses spend all of their time and money focused on trying to fill the cash bucket with new customers and virtually no money plugging the leaks caused by internal processes. Almost every hospital will spend a small fortune trying to gain a slight edge in clinical technology that will allow them to get or keep a patient. The only problem is that this elusive edge is constantly in peril from competitors and the fickle perceptions of customers. You can never fully control this aspect of your cash flow.

You do, however, have complete control of the processes and technology inside the gates of your business. Every process leaks money. Even if you only make one mistake in every 100 patients, orders, bills, purchase orders, products or services, that one percent error rate can add up to 6-12-18 percent across your business.

The Juran Institute has found that the cumulative cost of mistakes, rework, and scrap will add up to 25-40% of your total expenses. Don't believe it's that much? Spend a day tracking every patient fall, medication error, redraw, mistake, glitch, and complaint in your facility. Then calculate the cost of finding and fixing each one. How much time does it take? What does it cost?

If you and your employees weren't fixing the mistakes, what could you be doing instead? Multiply this by the number of days in the week, month, or year. Ouch!

These errors aren't your fault and they're not the fault of your people. It's your systems and processes that are at fault—they let people make mistakes that could be prevented.

Every Process Produces Two Unwanted Side Effects

Every process produces defects and delays. The defects have to be fixed or scrapped. **Big leak #1: Fixing mistakes** (like medication errors or patient falls) that consume time and money that could be better spent serving patients and boosting the bottom line. **Big leak #2: The delays** (like lab, radiology or housekeeping delays) that cost you time, money, productivity and profitability.

Even a small reduction in defects and delay in your mission-critical processes can give you a sustainable competitive advantage. Patients aren't stupid. They can tell a finely tuned supplier from a clumsy one. Once you have a head start, your competitors will always be playing catch up.

Secret #1: Work *ON* Your Business, Not *IN* It

In the 1970s, I owned a Mustang. I loved to drive *in* my car and I liked to work *on* my car, but I couldn't both work *on* my car and drive *in* it at the same time. As you know, if you don't periodically change the oil, tune the engine, fix the brakes, and change the tires your car will most likely breakdown. And it will most likely break down at the least opportune moment. While most business owners will take time out of their hectic schedule to have their cars serviced, most never think to do the same for their businesses.

Do you feel like your business is controlling you, not the other way around? Can you leave your department in the capable hands of your employees or does it demand too much of your attention?

In the 1990s, Michael Gerber captivated the attention of business owners with a book called the E-Myth. He argued that most people spend all of their time working *in* their business, but most never work *on* their business, creating and improving the processes and systems that minimize mistakes and maximize output. If you want a reliable, dependable business that consistently produces predictable results, you will need proven methods and tools to make it happen.

Secret #2: Become Process-Oriented

It's easy to be seduced by the excitement of "emergency department thinking", crisis management and firefighting. It becomes a way of life in most businesses. When daily heroics are required to avoid missing commitments and preventing negative patient outcomes, healthcare comes to rely on heroes.

Develop a Lean Six Sigma Mindset!

This is another mistake. People-oriented businesses believe that quality and productivity are a function of their people, not their processes. People-oriented businesses have to pay a premium for the best people.

When these people leave, they take their highly refined mental processes with them.

Process-oriented businesses, on the other hand, rely on mistake-proof processes to ensure that products and services are delivered on time and error-free. Process-oriented businesses have procedures for everything from cleaning restrooms (e.g., McDonalds) to maintaining Navy fighter jets. When you have good processes, there's less need for overtime and you can hire the lowest skill-level necessary for the job. Labor costs are cheaper because you aren't bidding for a small group of the best people. Best of all, you can go on vacation, secure in the knowledge that your department will run itself.

Secret #3: Implement a Proven Improvement System

Most healthcare facilities think they should be able to find and fix all of the problems in their business, and they can up to a point, but then they hit a wall. This isn't your fault. Research has shown that one set of problem solving methods (e.g., common sense and trial-and-error) will work for a certain class of problems, but not another. Then you need a new set of methods and tools to solve the next class of problem. Consider antibiotics: they fight bacterial infections, but not viruses like the common cold. The same is true in business.

When people first start a business, processes are created by accident in an ad hoc way. Problems with the processes are fixed using common sense and trial-and-error as the business grows. But at some point, the ability

of these two methods to solve the more mysterious and complex problems begins to fall off. Eventually, they stop working all together. This early-success and later-failure syndrome affects all problem-solving methods. It's often shown as an S-curve.

Throughout time, people have routinely found ways to solve seemingly unsolvable problems. Edison invented the light bulb. The Wright brothers figured out how to fly. But to do this, they invariably had to invent new ways to solve problems that exceeded the grasp of the old methods.

Fortunately, the methods and tools for creating and improving your processes and systems have already been developed and proven in every industry. I have found that a few key tools used in the right order are all you need to start making immediate breakthrough improvements in speed, quality, productivity and profitability.

Double Your Profits

If you're like most businesses, reducing costs by 20% would more than double your profits. To make this easy, I've created a complete tool belt for working *on* your business. It's all here: methods, tools, technology, and training to handle everything you need to plug the holes in your cash flow and start saving 20-35% of your expenses.

Don't Have The Time?

The urgencies of any business can consume all of your time. Fortunately, given the right gauges on the dashboard of your business, it's easy to diagnose where to focus your improvement efforts even while you are still working *in* your business. That's why we created the QI Macros software to simplify your initial foray into measurement and improvement.

Too Busy Bailing to Plug the Leaks?

Every facility has to improve the key aspects of performance every year just to keep even with the competition. The only question is whether you're going to rely on the declining effectiveness of common sense and trial-and-error or are you going to upgrade your ability to solve the stubborn, seemingly unsolvable problems in your facility? If you aren't going to employ the proven strategies of Lean Six Sigma, what are you going to do instead?

Calculate Your Benefits

	Your Business	Reduce Costs	Increase Revenue
1. Annual Gross Revenue	\$ _____	\$10,000,000	\$20,000,000
2. Annual Expenses	\$ _____	\$ 9,000,000	\$18,000,000
3. Current Net Profit (#1-#2)	\$ _____	\$ 1,000,000	\$ 2,000,000
4. Reduce Expenses by 10%	\$ _____	\$ 900,000	
5. New Net Profit (#3+#4)	\$ _____	\$ 1,900,000	

Which is easier? To increase revenue by 100% or cut your costs by 10%?

Lean Labs

Lab turnaround times are one of the keys to patient throughput. 60% of Emergency patients will need lab work. Most of the patients in a hospital will need lab work before discharge. The ability to get that work done quickly will accelerate patient flow, improve outcomes, reduce patient length of stay, reduce costs and increase profits.

Lean Labs

Studies have shown that reducing patient length of stay (LOS) is key to improving patient satisfaction and clinical outcomes. Delays in the lab increase ED LOS which causes LWOBS (leaving without being seen) and diversion. It's estimated that every hour on divert costs a hospital two ambulances and estimated revenue of \$6,000 per ambulance. LWOBS may be worth \$600 per patient.

Delays in the lab cause delays in discharge which can also cause increased LOS in the ED and units. Delays in the lab can cause adverse patient outcomes. Every lab plays an important part in achieving those patient, clinical and financial outcomes.

Here's the Secret

Your technicians are busy, but your patient's sample is idle over 50% of the total turnaround time. The amount of time it takes to deliver a product or service is far greater than the actual time spent adding value to the product or service. Most products and services only receive value for 5% of the total delivery time. Why does it take so long? Delay. The patient's sample is sitting idle far too long between steps in the process.

Examples: A 5-minute lab test may take a total of 20-40 minutes due to unnecessary delays and travel time. Insufficient or unusable samples may require redraws which further delay the results.

The 25-2-20 Rule

Every time you reduce the time required to provide a product or service by 25%, *you double productivity and cut costs by 20%*.

Value Stream Mapping and Spaghetti Diagramming will help you find ways to eliminate the non-value added delays between each step of the process. Technicians won't have to work any harder; you just eliminate the delay.

Walking is waste! Unnecessary movement of samples causes delay. One hospital found ways to reduce movement by 54%—four *miles* of unnecessary movement per day in the lab (seven hours of delay per day). Over the course of a year, this is the distance between Denver and Pittsburgh.

Elevator Rides are Waste! One hospital found that it takes three to five minutes to catch an elevator in a seven story hospital. That means 6 to 10 minutes of delay for each test just waiting for elevators. By leaving phlebotomists on the floors at peak rounding times, using existing pagers, delivering orders to the floors via pneumatic tube and returning samples via the tube, it was easy to save 6-10 minutes per test which accelerates discharges as well.

Lean Simplified

The great thing about Lean is that you can start applying it immediately and you already understand most of the key principles.

The 5 S's: The first step in leaning your lab is to sort, straighten, and shine. This should take no more than four hours. You'll be stunned by how much unusable stuff is stored in your lab's cubbyholes. Then standardize and sustain the first three S's.

Redesign the Lab to Increase Flow: Most labs are designed around the tests—chemistry, hematology, coag, UA, or micro. When you redesign the lab to optimize the movement by sample type, you'll gain dramatic improvements in speed because you've eliminated the delay.

Tip: Watch Your Sample, Not Your People! If you look at the racks, rockers and other resting places for samples, you'll soon see why results are delayed. Redesign your lab and your lab processes to smooth the flow of patient samples.

Double Your Speed

Lean has simple, achievable goals like:

- .. 30-60% reduction in Turnaround Time (TAT)
- .. 20-40% reduction in floor space requirements
- .. 20-30% improvement in equipment capacity
- .. 20-50% improvement in productivity
- .. 30-60% reduction in inventory
- .. Reduction in defects
- .. Increased quality
- .. Financial savings
- .. Organized workplace
- .. Predictable, manageable workload

The Economies of Speed

Patients and payers today demand speed and customized solutions. I don't know about you, but I grew

It's not the big that eat the small, it's the fast that eat the slow!

up on the wisdom of Henry Ford: mass production and the *economies of scale*. But while I was learning about Ford in the 50's, Toyota was mastering the art of *speed production* and the *economies of speed*.

The 5% Rule

The amount of time it takes to deliver a product or service is far greater than the actual time spent adding value to the product or service. Most products and services only receive value for 5% of the total delivery time. Why does it take so long? Delay. The product is sitting idle far too long between steps in the process.

Examples: A patient spends two hours in the Emergency Department, but only 10 minutes with a nurse or doctor. The best EDs turn outpatients in 40 minutes or less and inpatients in 90 minutes or less.

It takes 300 days to resolve an appealed insurance claim, but the claims processing group only spends 15 minutes every month tweaking the claim.

A human resources staffing group takes 10 days to screen, test and interview candidates, but there's only 1.5 hours of actual work in those 10 days. By combining the telephone screening with the interview and having applicants take a test on-line, they took 9 days out of the process and saved one hour of staff time per candidate (estimated at 20 hours per month).

The 25-2-20 Rule

Every time you reduce the time required to provide a product or service by 25%, *you double productivity and cut costs by 20%*.

Watch Your Product, Not Your People!

The 3X2 Rule

When you slash your cycle time to do mission-critical processes, you enjoy growth rates three times the industry average and twice the profit margins.

Lean Thinking and Value added analysis will help you find ways to eliminate the delays between each step of the process. Employees won't have to work any harder; you just eliminate the delay.

Two-Day Lean Labs Workshop

- 1/2 day Overview of Lean and 5S principles.
- 1/2 day Use 5S principles in your lab to sort, straighten, and shine the lab.
- 1/2 day Learn and apply Lean redesign principles to your lab. Implement design improvements immediately.
- 1/2 day Learn how to standardize and sustain the 5S improvements.

Investment: \$14,000

Do-it-Yourself - Lean Lab Video



Want to learn the essential skills of Lean and apply them to your lab? You might consider our Lean for Labs video which covers Lean Simplified concepts and specific applications to Lean in the Lab. (2 DVDs - 90 min) Only \$197 plus S&H

Accelerating Patient Flow



Every hospital succeeds or fails through a combination of people, process and technology. **Lean Six Sigma** will show you how to make dramatic performance improvements in clinical outcomes, operational efficiency and boost the bottom line.

Four Steps to Patient Flow and Profitability

Almost every hospital experiences diversion due to delayed patient flow!

The High Cost of Diversion

- Every hour on divert costs two ambulances
- Every inpatient is worth \$6,000 on average
- LWOBS are worth \$600 on average

Most hospitals *push* patients through the hospital—from ED to nursing units to discharge. **Switch to *pull* thinking.**

Discharge orders *pull* the patient out of their bed and *pull* housekeeping to clean the room. Nurses on the floors can *pull* a patient up from the ED whenever the ED is too busy. The ED can *pull* a phlebotomist from the lab during peak hours.

Reduce or eliminate unnecessary delays like patient movement. This is why so many EDs are adding CT scans, portable X-Rays and point of care lab tests.

Reduce delays in the lab and imaging by using the 5 S's and Lean redesign.

Reduce defects in all aspects of daily operation (including purchasing, payments, billing, and collection) using Six Sigma.

Accelerate Patient Flow Using This Four-Step Improvement Strategy: FISH—Focus, Improve, Sustain, and Honor.

1. **Develop Laser Improvement Focus**
 - ◆ Reduce delays in ED, Lab, Imaging, and Nursing Units.
 - ◆ Reduce defects, mistakes and errors in clinical and operational processes.
2. **Double Your Speed** by eliminating the speed bumps that delay patients. Use Lean Thinking and the Power Laws of Speed.
3. **Double Your Quality** Using Six Sigma and the Power Laws of Quality.
4. **Monitor and Sustain** the improvement using control charts and a healthcare dashboard, because ***you can't improve what you don't measure.***

If you already have a system that tracks the time a patient spends in every step of their journey, then you're ready to use the QI Macros software (page 13) to analyze your data and start making improvements.

If all of your records are on paper, then it's too costly to type them into a computer after the fact. And maybe you can't afford a medical record system that tracks this information. You still need a way to capture patient flow measures in *real time*. One of the ways to do this is with Excel! (See next page.) You can use our tools "off the shelf" or have us customize them to meet your needs.

Management Tools

Every hospital I work with could use a good Excel toolsmith to create automated ways to measure and manage every aspect of patient flow. With Excel, it's possible to create automated tracking tools to capture the times when events occur anywhere from registration to discharge. We've created many of these tools that can be customized to meet your needs.

ED Whiteboard

Track Lab, Imaging and ED Turnaround Times with our Excel-based ED Whiteboard. The ED Whiteboard tracks times on all patients and their lab/imaging results (Ordered/Complete).

qimacros.com/edwhiteboard.html

Introductory offer: \$297

Rm	Time	Patient	Complaint	MD	Nurse	CBC	BAS	Comp	CKMB	UA	EKG	Xray	CT	US	Misc	Admit
1	09:47	Black, A	CP	Jones, M		C					C					
2	09:52	White, B	Ankle	Abraham, T								O				
3	09:53	Green, C	Ab Pain	Jones, M		O			O							
4																
5																

Just point-and-click time and test cells to populate them. Use pull-down list to populate doctors and nurses.

Track TATs for key lab and imaging test results. Shows ordered and completed test results.

ED & Patient LOS Tracking System:

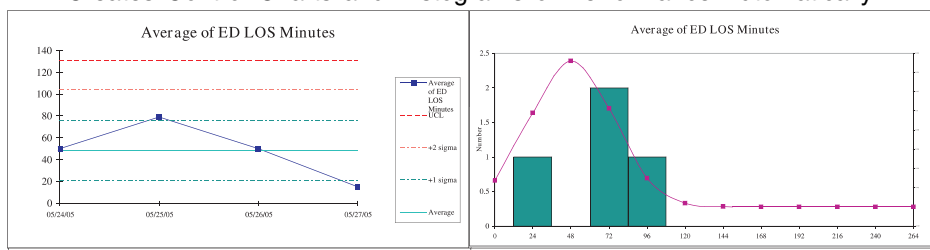
To accelerate patient throughput, you have to be able to measure and improve the key steps in length of stay. Watch a demo at qimacros.com/edlog.html. Key measures include:

- ED LOS (goal: 30 minutes)
- Nursing Unit LOS
- Discharge to Disposition
- Bed Dirty to Bed Clean
- Meal Ordered to Meal Delivered

Introductory offer: \$497

	A	B	C	D	E	F	G	H	I	J	K	L
1	Date	Patient Name #	Sign-In Time (Nurse)	Triage Time (Nurse)	Exam Time (Doctor)	Discharge Time	Bed Request Time	Patient Pickup Time	Doctor	Diagnosis	Bed Type	Room #
2	06/24/06	Smith, J	15:58	16:18	16:48		16:59	17:19	Adams, J	A. Fib, Fever	Tele	292
3	06/25/06	Jones, J	15:58	16:18	17:47		16:59		Adams, CP		Tele	292
4	06/25/06	Red, J	15:58	16:17	16:48		18:59		Bush, G	Pain	Med	423
5	06/26/06	Green, J	15:58	16:18	16:48		16:59	16:26	Bush, G	A. Fib, Fever	Med	321
6	06/27/06	White, J	16:39	16:44	16:54		17:41	18:41	Adams, J	Pain	Med	123
7												

Creates Control Charts and Histograms of Performance Automatically!



Bed Management System:

We also created an Excel-based Bed Management System for hospitals to help monitor and improve patient throughput. Watch a demo at qimacros.com/bedmanagement.html or give us a call at 888 468 1537. Custom solutions begin at \$5,000.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Status Codes	ED	ICU 2nd fl	L&D	ICU	W&HB	4th Floor	Tele - 5th	Surg - 6th	Medical									
2		Rm	Status	Rm	Status	Rm	Status	Rm	Status	Rm	Status	Rm	Status	Rm	Status	Rm	Status	Rm	Status
3	A- Available	1	O	201	O	201	NIS	1	O	351		401	O	501	O	601	O	701	O
4	BK- Assigned	2	O	202	O	302	NIS	2	O	352		402	DP	502	O	602	O	702	O
5	DC- Discharge	3	O	203	O	303	O	3	O	353	NIS	403	O	503	O	603	O	703	O
6	DL- Likely	4	O	204	O	304	NIS	4	O	354	NIS	404	O	504	O	604	O	704	O
7	DP- Pending	5	O	205		305		5	O	355	NIS	405	O	505	O	605	O	705	O
8	DIT- Transfer	6	O	206		306		6	O	356	NIS	406	O	506		606	O	706	O
9	ES- Cleaning	7	O	207	O	310	NIS	7		357		407	O	507	O	607	O	707	DP
10		8	O	208	O	311	O	8		358		417		508		608	O	708	O
11	NIS - No Staff	9	O	209	O	312		9		359		418	O	509	O	609	O	709	O
12	NIS - Not in Bk	10	O	210	O	314	O	10		360		419	O	517	O	610	O	710	O
13	PW - P/Waiting	11	O	211	O	315		11		361		421	O	518		611	O	711	O
14		12	O			316		12		362		422	O	519		612	O	712	O
15		14	O			317	O	14		363		423	O	520	O	614	O	714	O
16	O- Occupied	15	O			318		15		364	O	424		521	O	615	O	715	O
17	OM- Over Matrix	16	O			319	O			365			BITTER	522	DP	616	O	716	O
18	P- Ped	17				320				366		1		523	O	617	O	717	O
19		18				321				367	O	2		524	O	618	O	718	O
20		19								368		3		525	O	619	O		
21		21								369				526	DP	620	O	719	IP
22		22								370				527		621	O	720	
23										371	O					622	O	721	P

Double Your Quality

Even though every healthcare manager claims to understand the 80-20 rule, they still try to deploy improvement methods everywhere. But Lean Six Sigma is like peanut butter—the wider you spread it, the thinner it gets. Remember the dark side of the 80-20 rule: if you try to use Lean Six Sigma everywhere, 80% of your effort will only produce 20% of the benefit.

Bell-Shaped Mindset

Because improvement principles evolved predominantly in a manufacturing environment, there's a lot of emphasis on the "normal" or bell-shaped curve, where product measurements are distributed across a range of values.

4% Of Your Business Causes Over 50% Of The Waste, Rework, and Lost Profit

Unfortunately, this emphasis has blinded most leaders to the reality that defects tend to cluster in small parts of the business; they aren't spread all over the workplace.

What if you could get over half of the "benefit" from improvements by working on just 4% of the business?

You can! Pareto's 80/20 rule is a *power law*. Power laws aren't linear, they grow exponentially. So, if you believe in Pareto's rule, you have to believe that it applies within the 20%: 4% of the business will cause 64% of the waste and rework.

The 4-50 Rule

Wherever I go, I find that four percent of the activities cause over 50% of the defects, delay, waste, and rework. Four percent of Americans have over half the wealth. 4% of IBM's original 360 operating system contained 64% of the bugs. A 6% medication error rate creates over \$9 Billion in unnecessary medical costs each year.

Do-it-Yourself - Lean Six Sigma System



Want to learn the essential skills of Lean Six Sigma and apply them to your healthcare environment? You might consider our Lean Six Sigma System (back cover) which covers Lean and Six Sigma Simplified concepts. It includes over four hours of video and four hours of audio along with our Lean Six Sigma Learning materials. Only \$775

To Increase Results, Narrow Your Focus!

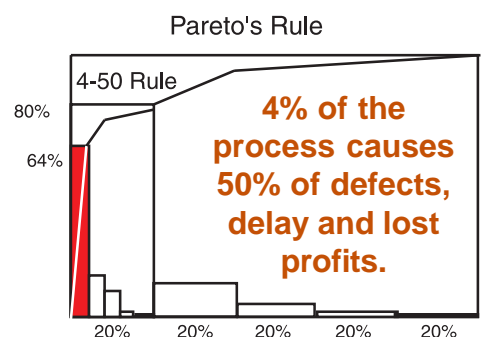
This suggests that you can maximize your results by *minimizing* your investment and narrowing your focus. It also suggests that to accelerate results, you will want to *reduce* the number of people involved. Wow! More bang for the buck!

Learn How To FISH

There are four simple steps to the improvement process:

1. Focus on the 4%.
2. Improve the 4%.
3. Sustain the improvement.
4. Honor Your Progress

Then do it again on the next 4% and the next. This *crawl-walk-run* approach to performance improvement will systematically minimize your investment and maximize your results.



Workshops

One-Day Lean Six Sigma for Healthcare Workshop

Jump Start Your Productivity and Profitability!

Typical Lean Six Sigma training takes 10-20 days spread over 2-4 months at costs ranging from \$5,000 to \$40,000 *per person*.

We do it in one day with up to 25 people for as little as \$8,500.

Sound too good to be true? It's not because most Lean Six Sigma training covers methods and tools you'll *never use* in healthcare. It violates one of the key rules of Lean: avoid overproduction. Too much training dilutes the understanding you need to use these methods and tools in healthcare. So we decided to teach only the methods and tools you will need to succeed and Lean Six Sigma in Healthcare.

We call it Lean Green Five Sigma training, because we focus on teaching the essential methods and tools you need to start achieving results and moving toward 5-sigma. Most people aren't ready for all of the complex methods and tools required to achieve Six Sigma.

If your hospital is like other successful and profitable companies, you may not be sure that Lean Six Sigma can improve your bottom line. But after working with many hospitals, I can tell you that most are successful and profitable while barely 3 sigma. If a typical 3-sigma company is losing 25-40% of its expenses on waste and rework, defects and delay, think what your profit margins could be if you started reducing that waste. Think how clinical outcomes would improve if patients, doctors, and nurses weren't constantly waiting for lab results, X-rays, medicines, and so on.

You don't need to be a Black Belt in statistical methods to start making big gains. You only need a few key methods and tools and lots of improvements to achieve 5-sigma.

You don't have to be a statistician to use statistical process control (SPC) to start improving healthcare quality. You just need to know how to select your data, run control charts in the QI Macros and evaluate the results.

And we tailor our training to your company's data and needs, because you learn better when it's relevant to your job. We like to develop improvement stories right in the classroom so that you'll be ready to start root cause analysis immediately.

Workshop Outline

Overview

- What are Lean and Six Sigma?

Focus for Laser-Like Improvement

- Create Your Master Improvement Story
- 4-50 Rule

Improve the Process

- How to Double Your Speed Using Lean
- How to Double Your Quality Using Six Sigma

Sustain the Improvement

- Flow Charting and Value Stream Mapping
- Choosing and Using Control Charts
- Analyzing Stability and Capability

Honor Your Progress

- Recognize, Review, and Refocus

Materials Provided

- Lean Simplified Book
- Six Sigma Simplified Book
- Lean Quick Reference Card
- Six Sigma Quick Reference Card
- SPC Quick Reference Card
- QI Macros Lean Six Sigma Software

Investment: \$8,500

**Includes QI Macros for up to 25 participants
(only \$300/person including software)**

www.qimacros.com/

leansixsigmahealthcare.html

Dashboards & Scorecards

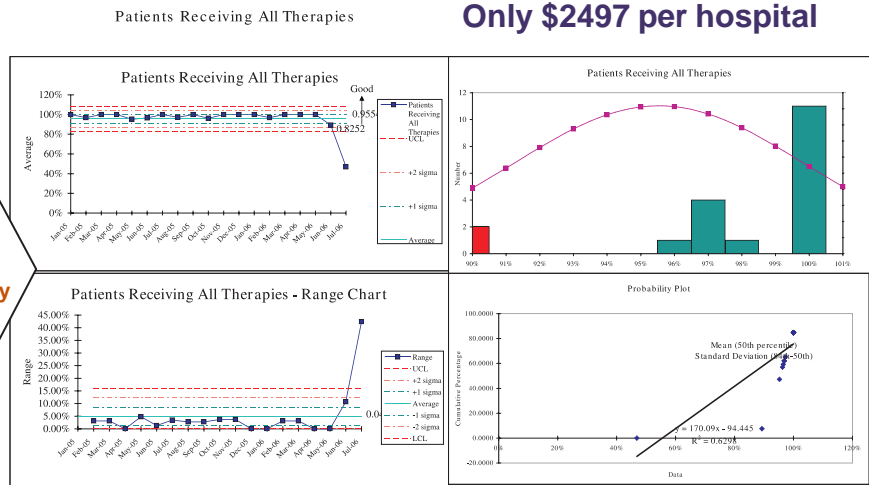
Are your quality improvement specialists tied up creating dashboards and scorecards of clinical and operational measures when they should be improving productivity and profitability? We've been developing Excel-based scorecards and dashboards for hospitals and healthcare systems around the country.

JCAHO, IHI and CMS Measures

JCAHO and CMS measures are required to show performance and improvement on key clinical outcomes. To make this easier, we've created fill-in-the-blanks templates for the measures and bundles of Acute Myocardial Infarction (AMI), Heart Failure (HF), Pneumonia (PN), Pregnancy (PRC), and Surgical Infection Prevention (SIP). Each template includes a data entry sheet (entry fields are in yellow) that doubles as a scorecard to show when you are missing the standards of performance (green, yellow, red). Control charts and histograms are created automatically from the data you enter.

HF #1				
Date	Discharge Instructions	# HF Patients	% Discharge Instructions	# Patients No Discharge Instructions
Jan-05	29	29	100%	0
Feb-05	31	32	97%	1
Mar-05	28	28	100%	0
Apr-05	29	29	100%	0
May-05	20	21	95%	1
Jun-05	28	29	97%	1
Jul-05	31	31	100%	0
Aug-05	35	36	97%	1
Sep-05	35	35	100%	0
Oct-05	26	27	96%	1
Nov-05	32	32	100%	0
Dec-05	25	25	100%	0
Jan-06	31	31	100%	0
Feb-06	31	32	97%	1
Mar-06	29	29	100%	0
Apr-06	30	30	100%	0
May-06	32	32	100%	0
Jun-06	25	28	89%	3
Jul-06	15	32	47%	17

Charts Created Automatically



Only \$2497 per hospital

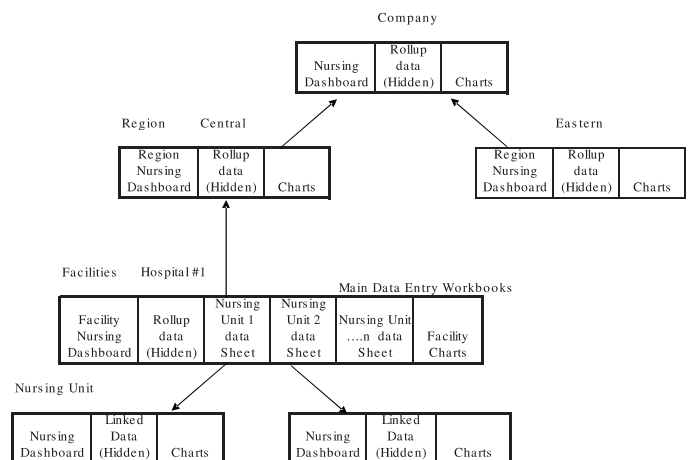
Custom Dashboards and Scorecards

We can also build customized dashboards and score cards for you. Each one consists of:

1. A data entry sheet for the numerator/denominator of each measure.
2. A scorecard to reflect performance of each measure using red, yellow, and green as shown above.
3. Control and other charts of key performance measures.

We've also created entire systems that roll up the data from unit to facility to region to company (see figure). Or however you want it. We can make Excel do almost anything you need. Best of all, once it's created, you only need a clerk to fill in the data and produce the reports.

Give us a call at 888-468-1537 for a free estimate.



Control Chart Wizard Software for JCAHO and Healthcare Quality!

The **QI Macros New Control Chart Wizard** makes choosing a chart easier than ever before. When I taught SPC classes, it often took all afternoon to help people learn how to choose the right chart. Then one day I had an insight: the QI Macros have to analyze your data to figure out how best to graph it, **why not let the QI Macros figure out which control chart to choose automatically?** Just select your data and click on the Control Chart Wizard and the QI Macros will analyze your data and pick the best chart based on what you've selected.

Six Sigma gurus say that the next wave of Six Sigma benefits will come from yellow belts, white belts, and *no* belts. But it's clear that you can't afford to send all of these people to a five-day class to learn a complicated and expensive SPC package. You'll need a powerful, yet inexpensive, all-in-one tool kit that *anyone* can learn to use. With the QI Macros you can start drawing charts and graphs in a matter of minutes. It's that easy.

The QI Macros are easy to install and easy to use. Using Microsoft Excel, simply select your data and click on the pull-down menu to choose the chart you want; the QI Macros will do all the math and draw the graph for you. Or choose one of the fill-in-the-blank templates for everything from flow charts and control charts to **FMEA, Pareto Charts, Scatter Diagrams, Fishbones (Ishikawa) and QFD.**

The QI Macros save time! The QI Macros work directly from your Excel data. No more copying Excel data into other SPC applications. And you can share the charts with anyone who has Excel. It's a cinch to copy the charts into PowerPoint and Word as well.

Global Compatibility: The QI Macros work in all versions of Excel (97, 2000, XP, 2003 and 2007) including ALL 30+ international versions! We also support Macintosh OSX.

Don't think you can afford control chart software for your nursing staff? Think again! While the Cadillac of SPC software is great for black belts and statisticians, **the QI Macros start at only \$139.** Significant discounts are available when you buy ten or more licenses.

Who is using the QI Macros? Thousands of hospitals, manufacturers, services and government facilities. With the QI Macros, paretos, histograms, and control charts are just a mouse click away. They also include 80+ easy-to-use, fill-in-the-blanks templates: **FMEA, Flowcharts, Fishbones, control charts and histograms.**

Quantity Discounts		
Quantity	Price:	S&H
2-9 licenses	\$119	\$10
10-49 Licenses:	\$99	\$15-35
50-99 Licenses	\$89	\$50

Hear what NAHQ Members say at qimacros.com/excel-spc.html

- **Six Sigma Tools** — 20 macro charts, over 80 templates, and 17 statistical tools like ANOVA.
- **QI Macros User Guide** (36 pages)
- **Six Sigma Simplified Training**, Email Course, Action Plan, Ezine, and Quick Reference Cards
- **QI Macros Training Course**—Email course on how to use the QI Macros

www.qimacros.com • (888) 468-1535 or (303) 757-2039

Download Your FREE 30-day Evaluation Copy Today!



FREE! You can download the QI Macros for Excel evaluation copy and user guide from our website: qimacros.com/freestuff.html.

Or you can order them for only: \$139 + \$8 S&H. (Item #230)

SPECIAL BONUS: Get \$80 of FREE ebooks (PDFs) with the QI Macros CD-ROM including Six Sigma Golf.

Can't brag enough about the QI Macros. It is the most easy to use, inexpensive tool out there. Best of all it's for real people, not just statisticians and computer nerds.

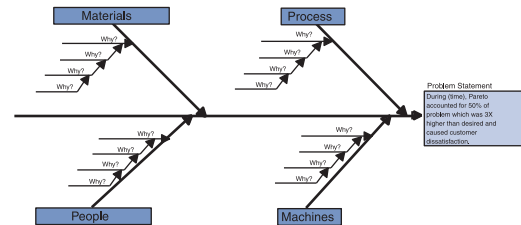
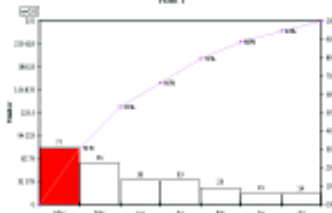
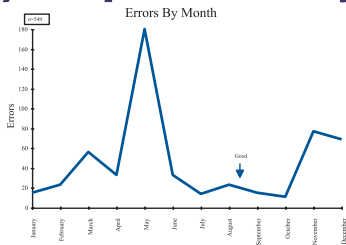
Sandra Fly RN, BS Dir of Quality



Order at qimacros.com and download immediately!

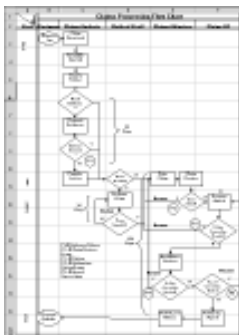
If Your Data Is In Excel, Shouldn't Your Charting Software Be There Too?

1) Improve Any Process With The QI Macros

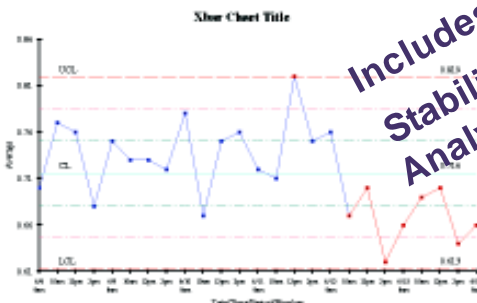


Actual QI Macros Graphs and Templates

2) Control the Process with Flow Charts, SPC, Control Charts, Histograms, & Capability Studies

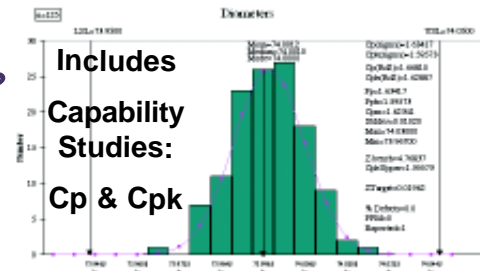


Flow Chart



Control Chart

Includes Stability Analysis



Histogram

Includes Capability Studies:
Cp & Cpk

3) DFSS (Design For Six Sigma), QFD, FMEA.

4) Lean's Value Stream Maps and Spaghetti Diagrams

5) ANOVA, Regression, and Hypothesis Testing

You Get All of These Charts for Only \$139		80+ "Fill-in-the-blanks" Templates		Statistical Tools
XmR (Individuals Chart)	Control Chart Templates	Action Plan, Affinity	Pareto Chart template	Anova: Single Factor
XmR Trend		Arrow, Block	PPAP for AIAG	Anova: Two Factor
XbarR Chart	c, np, p, u Templates	Checksheet	Probability Plot	Correlation
XbarS	EWMA Chart	Countermeasures Matrix	Project Charter	Covariance
XmedianR Chart	Levey Jennings Chart	Cost-of-Quality Analysis	Pugh Concept Selection	Descriptive Statistics
X and S Chart	Run Chart with Target	Design of Experiments	QFD House of Quality	Exponential Smoothing
Histogram with Cp, Cpk	c, u, np, p Chart	EMEA/FMEA	ROC Curve	F-Test: Two-sample
Box & Whisker Chart	XmR, XbarR, XbarS	Flow Chart	ROI Calculator	Non Parametric Tests
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Cusum	Multivari Chart	Gantt Chart	Speedometer Chart	Multiple Regression
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	Short run control charts	Ishikawa Diagram	Tree Diagram	Sample Size Calculator
		Lean - Takt & NVA	Voice of the Customer	t-Test: One Factor
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	239	Six Sigma Tools (Example Book)	\$19.95	\$25	\$6	
	205	Six Sigma Simplified Green Belt Training Workbook	\$29.95	\$25	\$6	
	210	Six Sigma Instructor Guide--Green Belt Training Made Easy	\$59.95	\$25	\$6	
	225	Six Sigma Simplified (5-CDs)	\$97	\$25	\$10	
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	265	Six Sigma Green Belt (2-DVD & Training Guide)	\$197	\$25	\$10	
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Questions about the QI Macros?

email: lifestar@rmi.net, knowwareman@qimacros.com

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Ready to Step Up to Lean Six Sigma Simplified?

Lean Six Sigma System

Lean Six Sigma Simplified System

This system includes four and a half hours of video training on Lean Six Sigma, Lean for Labs and SPC using the QI Macros.

1. Lean Simplified

- Learn the 5S's
- Remove the seven speed bumps from your business.
- Redesign for one-piece flow

2. Six Sigma Simplified

- Focus, Improve, Sustain and Honor your progress toward excellence.

3. SPC Simplified

- Choosing and using control charts and histograms to monitor and sustain your improvements.

Lean Six Sigma for Healthcare System



1. Lean Six Sigma books
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3. Lean for Labs Video (2 DVDs)
4. SPC Video training (1 DVD)
5. Lean Six Sigma 5-CD Audio
6. QIMacros SPC Software for Excel
7. QI Macros Training CD

Introductory offer: \$775

Call 888-468-1537 to order.

I started reading The Small Business Guerrilla Guide to Six Sigma and find it to make a lot of sense. I really identified with your cycle time example. I had a similar experience with a credit card company. We were able to reduce their written correspondence cycle time from 24 days to one-day processing for 90% of the work.

-Ken Leonhard

Your Lean Six-Sigma Simplified program is outstanding—and fantastically priced! I KNEW there had to be an alternative to \$15,000 Courses in Six Sigma or Lean Mfg that make our General Manager go apoplectic and our President laugh.

I'm going through everything carefully—because it sounds too good to be true—but you've hit all the buzzers that have prevented us from making progress so far and it looks like a well laid out progressive plan. We will be in touch!!!

-Kris Canfield

Lean Six Sigma *Simplified* for Healthcare- Special Offer H7

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