


# American Society for Quality

Grand Rapids Section 1001

“Using Quality Tools in Healthcare Settings”

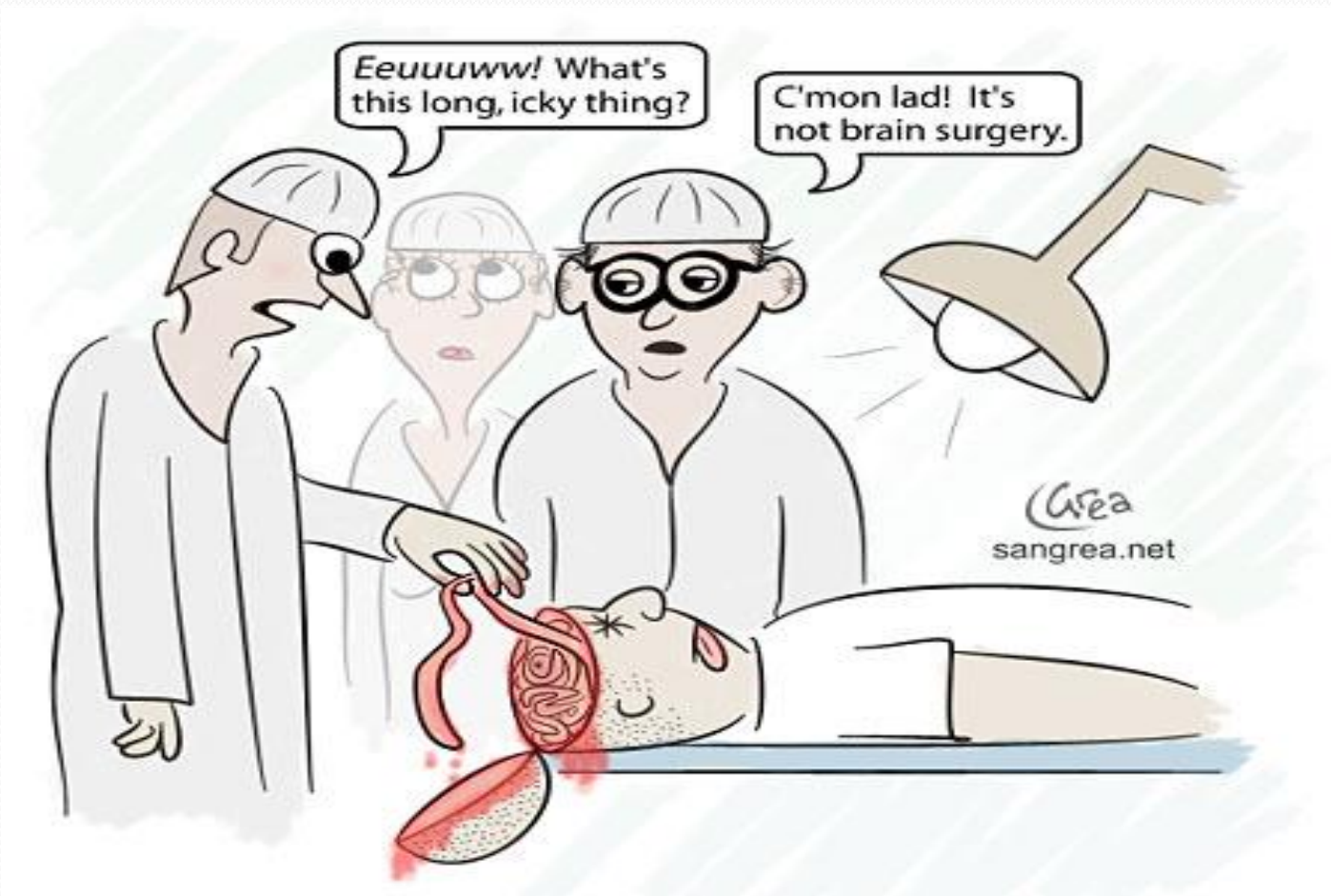
Brian Maas, MBA, CPHQ

October 13, 2011

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- Presentation Objectives:
    - The main objective is to show that similar methodologies exist between the quality sciences in manufacturing and critical thinking skills used in the healthcare setting.
    - The power of using the Plan-Do-Study-Act (PDSA) as a fundamental problem solving/process improvement tool.

## Current & Future State

- **Consumers** expect the goods & services they purchase to be of high quality (reliable, durable, good value)
- **Patients** are demanding the same today: outcomes that support expected quality of life at “reasonable cost” .
  - It is the “reasonable cost” that is in headlines today.
  - Pressure mounting to “bend the cost curve”.
    - Comparative Effectiveness
    - Core Measure Outcomes



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# Manufacturing Environment:

**Standards**  
**Outcomes**  
**Capability**  
**proficiency**  
**facilities**  
**Satisfaction**  
**Reliability**  
**Workforce**  
**Customer-centered**  
**Worldclass**  
**Accredited**

# Healthcare Environment:



A word cloud of healthcare-related terms. The words are arranged in a roughly circular pattern and vary in size and color. The colors range from dark green to brown. The words include: Standards, Capability, Brand, Patient-centered, Worldclass, Outcomes, Facilities, Accredited, Reliability, Satisfaction, Workforce, and Proficiency.

Standards  
Capability  
Brand  
Patient-centered  
Worldclass  
Outcomes  
Facilities  
Accredited  
Reliability  
Satisfaction  
Workforce  
Proficiency

A portion of my recently updated bio statement. During my Manufacturing career, I could substitute “Customer” where ‘Patient’ is listed.

- ... passionate concerning root cause problem solving in support of quality improvement initiatives and seeks to influence both patient clinical outcomes and the overall patient experience through the use of accurate, consistent, reliable data, and the implementation of evidence-based best practice.

- Healthcare performance data is becoming increasingly available and transparent via Internet web portals.
- Similar to manufacturing companies seeking customer loyalty, there is increasing competition among healthcare providers for patient loyalty.
- Internet searches allow us access to extraordinary amounts of information --- but, user beware! Read the footnotes regarding the data reporting period.
- The following slides illustrate several area hospital web pages relative to Quality data.
- Useful link: [www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov)

► featured links

[Join Our Team!](#)

[Diversity at Saint Mary's](#)

[Recruiter/Manager](#)

## Quality Report Cards

As an active and involved partner in your care, Saint Mary's Health Care provides quality and safety data of our hospital, so you have the information to make the best decisions for you and your family

These scores are updated on a quarterly basis. The measurements are consistent with the ones on the Centers for Medicare & Medicaid Services (CMS) and the Hospital Quality Alliance (HQA) at [www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov). Scores found on our site are reflective of the most current information available and therefore may differ from various public resources providing quality data.

### Categories

#### Heart attack

A heart attack (acute myocardial infarction or AMI) occurs when blood stops flowing to a part of the heart muscle. The lack of blood flow is often caused by a clot in one of the heart's blood vessels. Without the oxygen carried in the blood, part of the heart muscle dies or is damaged.

#### Heart failure

Heart failure, also called congestive heart failure, is a life-threatening condition in which the heart can no longer pump enough blood to the rest of the body.

#### Pneumonia

Pneumonia is an inflammation of the lungs caused by an infection. Many different organisms can cause it, including bacteria, viruses and fungi. Pneumonia is a common illness that affects millions of people each year in the United States.

#### Surgical infection prevention

#### Additional Info

[Heart Attack](#)

[Heart Failure](#)

[Pneumonia](#)

[Surgical Care Improvement /  
Surgical Infection Prevention](#)

[Home](#)



## About Metro Health

### Quality & Pricing

#### *A Long Tradition of Quality Care*

Metro Health was built on a tradition of excellent patient care, and patients continue to choose us because they feel satisfied and safe at our award-winning hospital. Quality is everyone's job, from members of the board of directors to front-line caregivers. We are continually improving our practices to ensure the best possible experience for those who have entrusted us with their care, and have been repeatedly honored for our efforts. Some of our recent awards include:



- Top 100 Hospitals National Award winner three years in a row from Thomson Reuters, a leading independent provider of solutions to improve the cost and quality of health care
- Best Acute Care Hospitals and Top 100 Quality awards from Total Benchmark Solutions
- Silver Performance Achievement Award from the National Cardiovascular Data Registry for our outstanding treatment of heart attack patients
- Governor's Awards for Quality & Safety for being a top-performing hospital in Michigan on numerous occasions [Learn more about our awards](#)
- We are anticipating receiving the designation as an accredited chest pain center, an acknowledgement of the expert care we provide to our patients having chest pain.

▶ [Expert Care. Made Easy.](#)

▶ [Metro Health PHO](#)

▶ [MetroConnect](#)

▶ [Metro Care](#)

▶ [CarePayment Program](#)

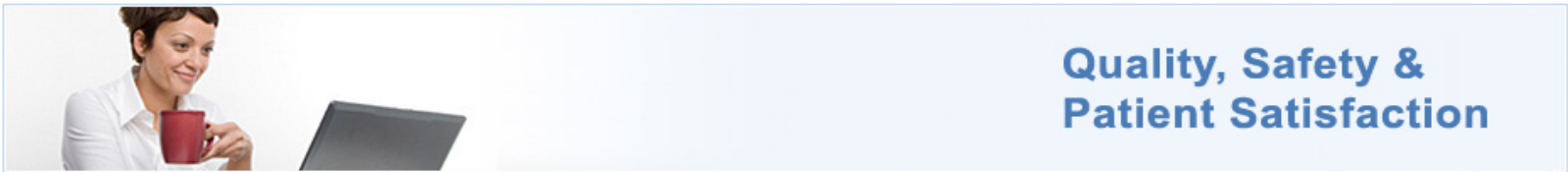
▶ [Metro Health Village](#)

▶ [Community Benefit Discount](#)

▶ [Quality & Pricing](#)

▶ [Metro Health Doctor's Office Visit](#)

▶ [Outpatient Surgery](#)



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  - Hip and Knee Replacement
  - Ischemic Stroke
  - Surgical Care Improvement Project
- › Patient & Family Experience
- › Expert Blog: Straight Talk on Health Care Quality

## Quality Reports

### High Quality Care

Achieving our vision to be the national leader for health by 2020 requires us to ensure every patient's complete satisfaction in all aspects of care. We work hard to make sure that happens by continually improving our clinical and operational processes. We believe that having better information will help you make better health care decisions.

We know practice makes perfect in health care as in most of life. That's why the number or volume of procedures that a hospital or a physician performs can be a valuable yardstick of clinical quality, especially when considered alongside additional quality measures and other factors. Research suggests that the more a surgical team does the same procedure together and the higher the volume, the better the clinical results. More than 100 studies have demonstrated better results at high-volume hospitals in heart surgery, major cancer resections and other procedures.

### How We Measure

Spectrum Health provides three sources for quality data to help you evaluate and make informed decisions about where to go to receive your health care:

1. [HealthGrades](#) is the nation's leading independent health care ratings company. Every year, it independently and objectively rates the quality of care for nearly all of the 5,000 nonfederal hospitals in the country. Its annual [Hospital Quality in America](#) study uses patient outcomes and information that hospitals report to federal and state governments.

♥ Give a Gift Today >

📎 Classes & Events >

👤 Jobs at Spectrum Health >

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Medicare.gov

Manage Your Health

Medicare Basics

Resource Locator

Help & Support

Help

For Consumers

For Professionals

Medicare.gov Hospital Compare Home

# Hospital Compare

Where do you want to find a hospital?

## Search Information

Location - ZIP Code or City, State

e.g. 10009 or New York, NY

Search type [?]

- General
- Medical Conditions
- Surgical Procedures

Find Hospitals



## Hospital Spotlight


Medicare releases new data on **Hospital Acquired Conditions**. Click [here](#) for more information.

You can now visit **Medicare's Hospital Value Based Purchasing Program** page and learn more about future measures.

You can now get information on **Mortality and Readmission Measures** for approximately 150 Veterans Administration Hospitals.

## Additional Information

View a list of Hospital Compare

- 
- “There is certainly more awareness about outcomes, clinical quality metrics, total cost of care, evaluating unexplained variation, efficiency and eliminating waste and duplication in the delivery of value.” – Peggy Naas, MD, MBA, VHA Vice-President of Physician Strategy

Source: VHA Inc. Alliance Magazine, August 2011

## Quality Documentation

- Manufacturing
  - SPC software tools
  - Dashboard Metrics
  - Standard Work
  - Final Inspection
- Healthcare
  - EHR/EMR
  - Dashboard Metrics
  - Care Plans
  - Physician Order Sets
  - Discharge Instructions

# Nursing Function... and Statistics?

**NNPN**  
NATIONAL NURSING PRACTICE NETWORK

**September 19, 2011 NNPN Journal Club**

Greetings NNPN Members,

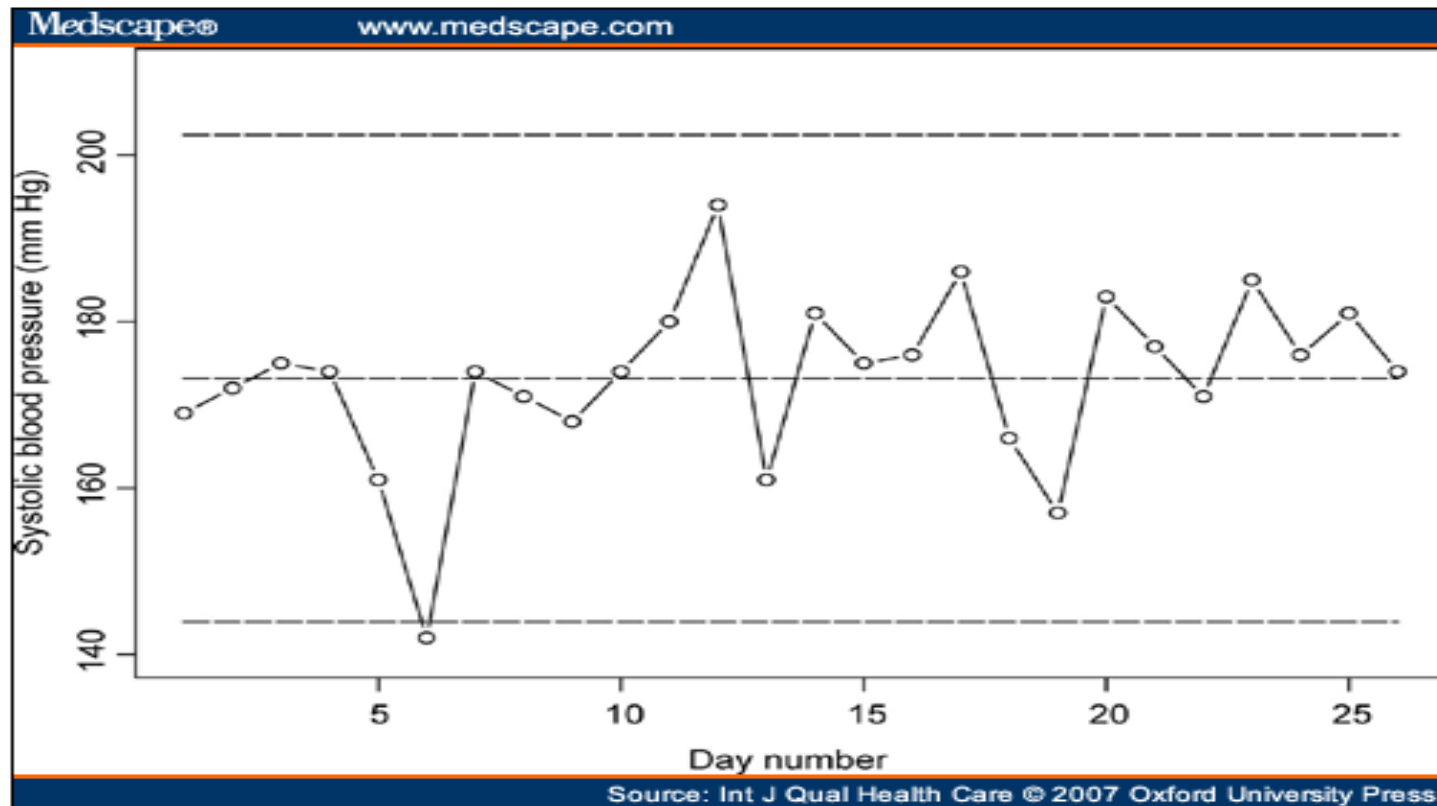
This is just a friendly reminder that you are invited to attend the next National Nursing Practice Network Journal Club! This session is scheduled for Sept 19, 2011 from 1:00-2:00pm PM Eastern Standard Time (EST) and will be led by [REDACTED] DNP, FNP-C, CLNC, Administrative Specialist Intermediate Health Care and Adjunct Faculty at the University of Michigan School of Nursing, who will be discussing the following article:

Wikstrom, B-M. (2002). Nurses' strategies when providing for patients' aesthetic needs: Personal experiences of aesthetic means of expression. *Clinical Nursing Research*, 11(1), 22-33.

**To participate, please review the following:**

1. Sign up by contacting [REDACTED]@umich.edu
2. The selected article, critique form, and log-in information/instructions will be sent to your email AFTER you have signed up and been confirmed to participate.
3. Please read the selected article and complete the accompanying critique form prior to the session.
4. Bring your completed critique form to the session and be an active participant!

***Do you need a quick review of statistics to help you prepare for the upcoming Journal Club session?*** Please check out [REDACTED] archived Lunch-n-Learn session titled, "Using Data to Guide Evidence-Based Initiatives to Improved Quality" that was held on 5/5/09. You can access the session at [http://www.\[REDACTED\].org/continuing-education/lunch-n-learn/archive](http://www.[REDACTED].org/continuing-education/lunch-n-learn/archive) after logging into the NNPN website. When you click on the session, you will be taken

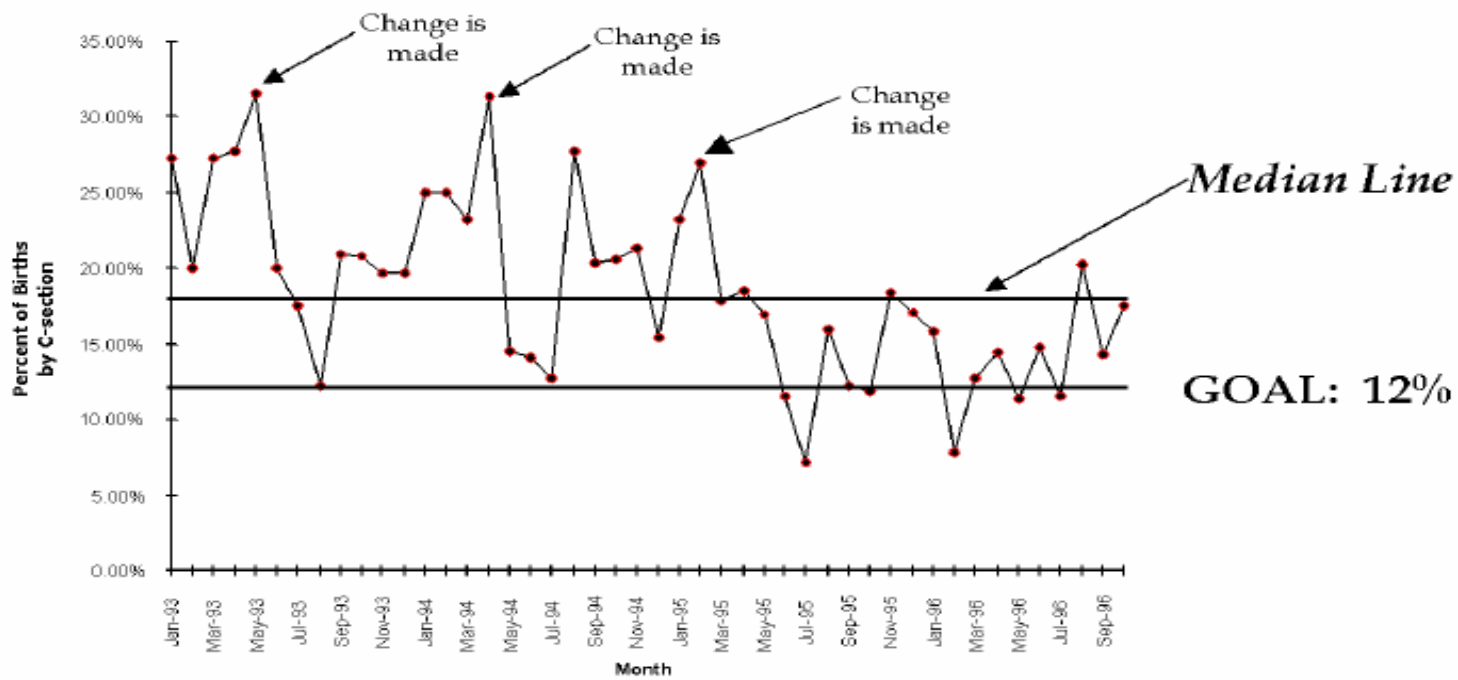


**Figure 1.**

X-chart, showing daily systolic blood pressure (mmHg) readings for a hypertensive patient. The horizontal upper and lower dotted lines represent the upper and lower three-sigma control limits, respectively. The middle dotted horizontal line is the mean. Day 6 shows evidence of low-special cause variation.

### Sample Run Chart: Cesarean Section Rate

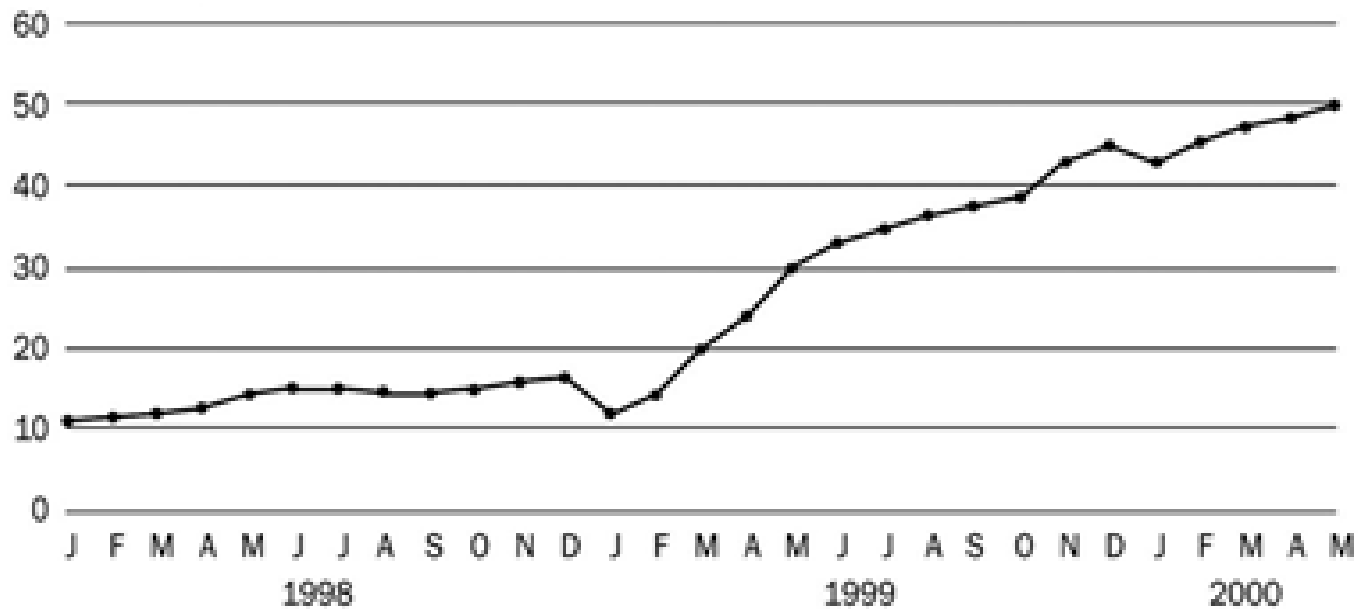
XYZ Hospital  
Anytown, NY, USA



Deliveries per month = 350-450

## Run Chart of Arterial Hypertension Patients under Observation (per 1,000) in Tula Oblast, Russia

Number of AH patients



## PDSA Worksheet for Testing Change

**Aim:** (overall goal you wish to achieve)

*Every goal will require multiple smaller tests of change*

Describe your first (or next) test of change:	Person responsible	When to be done	Where to be done

**Plan**

List the tasks needed to set up this test of change	Person responsible	When to be done	Where to be done

Predict what will happen when the test is carried out	Measures to determine if prediction succeeds

**Do**

Describe what actually happened when you ran the test

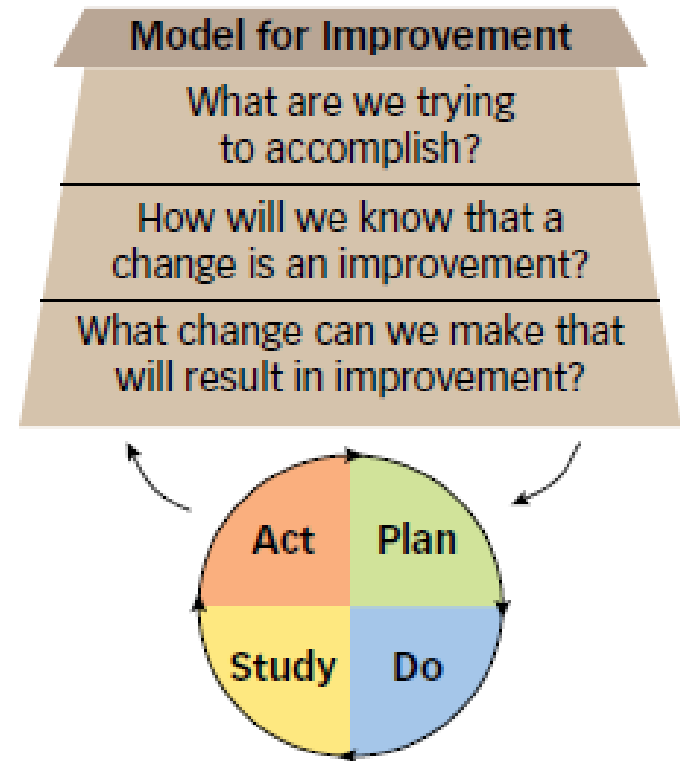
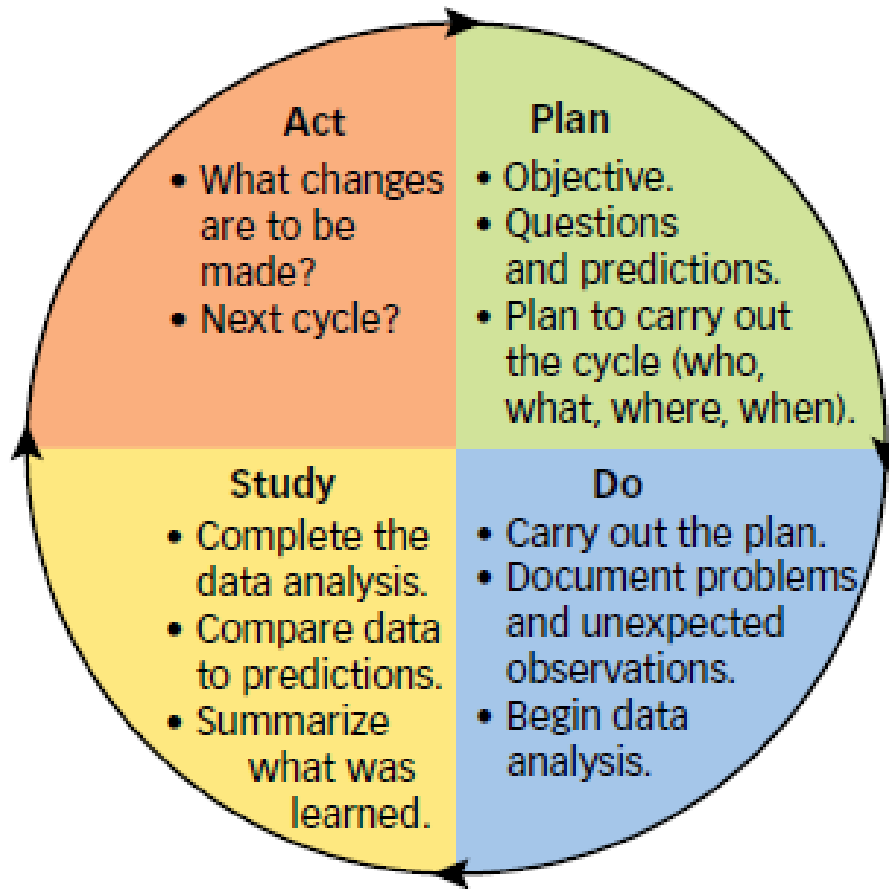
**Study**

Describe the measured results and how they compared to the predictions

**Act**

Describe what modifications to the plan will be made for the next cycle from what you learned

# PDSA and IHI Model for Improvement



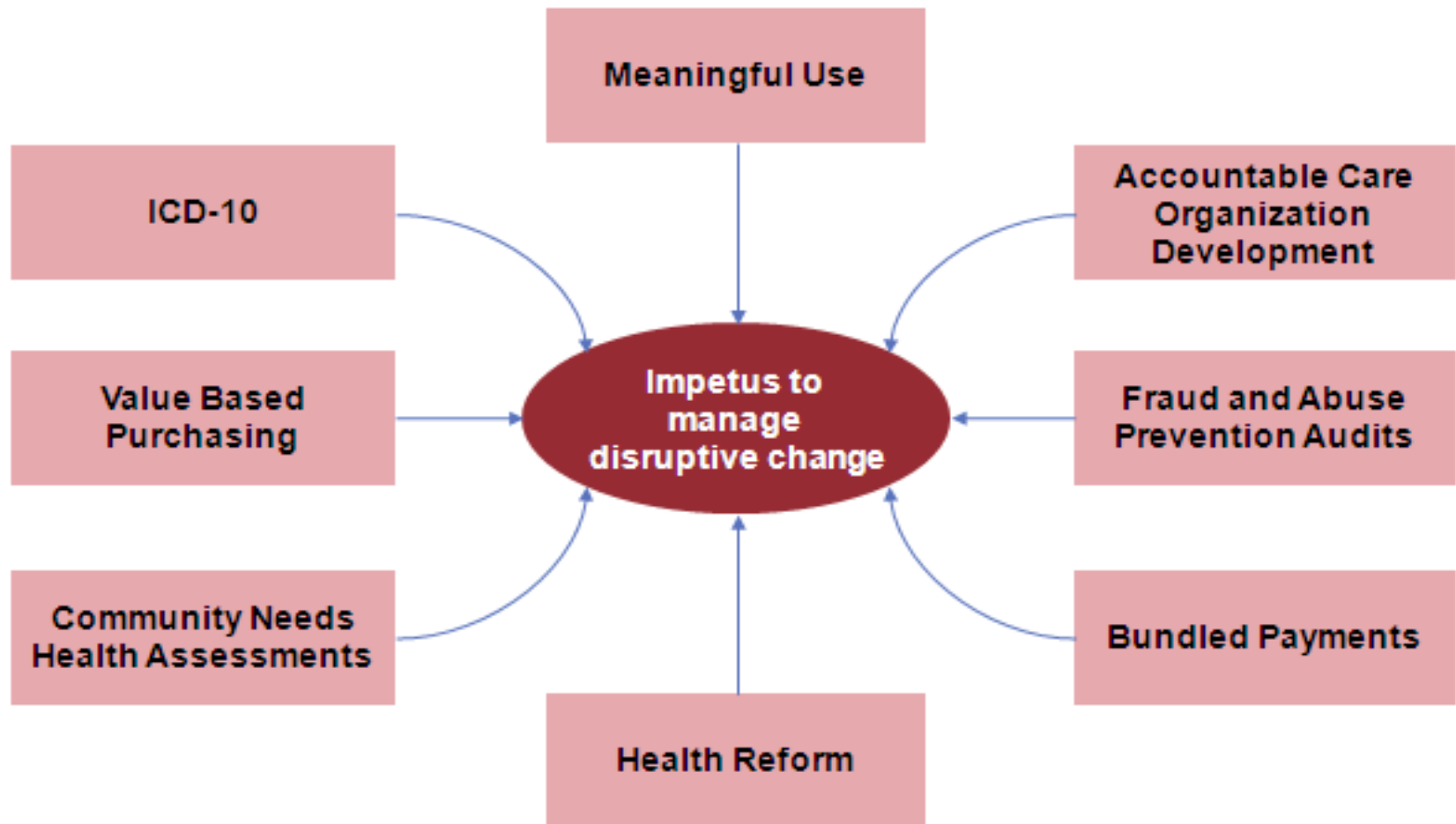
## **Benchmarking Resources – Initiate PDSA Improvement Cycle(s)?**

- The Joint Commission
- Agency for Healthcare Research and Quality (AHRQ)
- National Database of Nursing Quality Indicators (NDNQI)
- Institute for Healthcare Improvement (IHI)
- Value Health Partners (VHP) – Regional
- Volunteer Hospital Association (VHA) – Regional
- The Advisory Board

## Collecting Data

- How accurate/”clean” does data need to be for PDSA Improvement Cycles?
  - Acceptable to use 90-95<sup>0</sup>% accurate data – you have to ***start*** if there is to be any “rapid” in rapid cycle improvement efforts.
  - *Clinical* Research requires data validity, subjected to peer review and scientific principles.

# Environmental Factors Driving Change in Healthcare:



## Everyone Wants to Report on Healthcare Results:

- HealthGrades
- Leapfrog Group for Patient Safety
- Hospital Compare (CMS)
- Consumer Reports
- Thompson Reuters

**Transparency and standardized reporting will continue to drive improvement efforts in Healthcare!  
PDSA anyone?**

## THE PARADOX OF OUR AGE

*We have bigger houses but smaller families;  
more conveniences, but less time;  
We have more degrees, but less sense;  
more knowledge, but less judgement;  
more experts, but more problems;  
more medicines, but less healthiness;  
We've been all the way to the moon and back,  
but have trouble crossing the street to meet  
the new neighbor.  
We build more computers to hold more  
information to produce more copies than ever,  
but have less communication;  
We have become long on quantity,  
but short on quality.  
These are times of fast foods  
but slow digestion;  
Tall men but short character;  
Steep profits but shallow relationships.  
It's a time when there is much in the window,  
but nothing in the room.*

*The 14th Dalai Lama*

- What does the 14<sup>th</sup> Dalai Lama have to do with Quality Tools?
  - My interpretation:
    - Yes, we are all busy in any environment today.
    - Why complicate things further?
    - Keep it simple!
    - PDSA is a basic quality methodology/tool that allows us to do just that!



Thank You!

Questions?