What is the definition of Quality Improvement?

Quality Improvement is a formal approach to the analysis of performance and systematic efforts to improve it. It is a way to reduce and eliminate error.

What are the Quality buzzwords or acronyms I may read in the literature?

QI—Quality Improvement
PI—Process Improvement
QAPI—Quality Assessment and Process Improvement
CQI—Continuous Quality Improvement
TQM—Total Quality Management
Six Sigma—(DMAIC)

What models are used to make performance better?

- PDSA: Plan, Do, Study, Act
- FADE: Focus, Analyze, Develop, Execute

The FADE Model (Organizational Dynamics Institute, Wakefield, MA)

There are 4 broad steps to the FADE QI model:

FOCUS: Define and verify the process to be improved

ANALYZE: Collect and analyze data to establish baselines, identify root causes and point toward possible solutions

DEVELOP: Based on the data, develop action plans for improvement, including implementation, communication, and measuring/monitoring

EXECUTE: Implement the action plans, on a pilot basis as indicated, and

EVALUATE: Install an ongoing measuring/monitoring (process control) system to ensure success.
• PDCA: Plan, Do Check, Act
  This is the model we use at UAB.

**PDCA**

- **Plan** - collect data about a process and determine if improvement is needed
  - What do you want to change?
  - What questions need answering?
  - Who will do it?
  - How long will it take?
  - Where does it take place?
  - When does it happen?

**PDCA**

- **Do** - carry out an action developed to achieve improvement
- **Check** - collect data to see if there is improvement
  - What did you learn?
  - What did the results show compared to your prediction?
  - Were there any surprises?

**PDCA**

- **Act** - incorporate activity into daily routine if you achieved your goal, if you have not achieved your goal, go back through the cycle until goal achieved
  - What will you do?  Adopt?  Adapt?  Or Abandon?
What is Six Sigma?

Six Sigma is another model for improvement. The term comes from the use in statistics of the Greek Letter (sigma) to denote Standard Deviation from the mean. 6 sigma is equivalent to 3.4 defects or errors per million.

Six Sigma is a measurement-based strategy for process improvement and problem reduction completed through the application of improvement projects. This is accomplished through the use of two Six Sigma models: DMAIC and DMADV.

- DMAIC (define, measure, analyze, improve, control) is an improvement system for existing processes falling below specification and looking for incremental improvement.
- DMADV (define, measure, analyze, design, verify) is an improvement system used to develop new processor products at Six Sigma quality levels.

Is Quality Improvement the same as Process Improvement?

No.

The terms quality improvement and performance improvement are sometimes used interchangeably. Performance Improvement means a change in the system performance. In Healthcare, this is often used to refer to administrative systems, as contrasted to QI as impacting the actual quality of healthcare.

What is the difference between QI and EBP and Research?

The distinction between QI, EBP, and research is an important one. There is a spectrum, and it can be blurry sometimes, but there are some key points (with legal implications!).

QI:

1. Intent is to improve current practice.
2. For internal use only.
3. By definition, the data is confidential.
4. Action is within existing standards of care.
5. Institutional Review Board (IRB) approval is not necessary.

EBP:

1. Translation of best available evidence, clinical expertise, and patient preferences in order to make sound clinical decisions

Research:

1. Intended to create generalized knowledge.
2. Desire to publish or present.
3. Testing new methods.
4. Needs IRB approval!
What are Quality Indicators?

A discrete measurement of a structure, process, or outcome related to patient quality/safety that requires a QI process to measure, analyze, improve, and control.

Two types of indicators in healthcare

- Organizational indicators
- Nursing-sensitive indicators

Examples of Indicators we Can Measure:

HPPD
Skill mix
Nurse vacancy rate
Nurse education levels
Nurse certification rates
Falls
Falls with injury
Nosocomial pressure ulcers: Incidence and prevalence
Patient satisfaction with:
Overall nursing care
Pain management by nurses
Education by nurses
Nursing satisfaction and engagement
CLABSI
CAUTI
VAP
Restraint use
Pediatric IV infiltrations
Nurse work-related injuries:
Needle sticks
Musculoskeletal injuries
Exposures

UAB Belongs to a National Database which measures and compares Quality Indicators.

National Database for Nursing Quality Indicators (NDNQI)
What is a Dashboard?
A visual way we can look at the progress we make on our quality improvement projects.
Green means Good progress
Yellow means Status Quo
Red means Needs Improvement and Action Plan

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**Data not available**
What is a Benchmark?

A visual way to see how your unit is doing compared to other units and other hospitals. If we are below the benchmark for any indicator, we should have a plan to improve.

What is a Bar chart?

A visual way to look at data and compare.