The Chicken or the Egg

Gail Mora, CQA, CMQOE
Sr. Quality Administrator
University of NM Health System
An excellent use of time and money.
This was my assigned topic:

Quality Principles for Effectively Using Data and Information as the Bridge between Operational Processes and Performance.
Table Roles and Responsibilities

1. Expediter – Keeps the discussion moving and participatory.
2. Articulator – Articulates the table’s main discussion point(s) in <1 minutes.
4. Brainiac – Those who know the knowns and the unknowns.
“In God we trust; all others bring data.”

— W. Edwards Deming
Data Scientist: The Sexiest Job of the 21st Century

by Thomas H. Davenport and D.J. Patil
What is Data and Information?

Data: Facts or information used usually to calculate, analyze, or plan something. Information that is produced or stored by a computer. (MW)

Measures and Indicators: Numerical information (unit or standard of measure) that quantifies the input, output and performance dimensions of processes, programs, projects, services and the overall organization outcomes. (Baldrige)

Metrics: Often used interchangeable with the term Measures. Can be qualitative or quantitative.

Goal: Future conditions or performance levels that your organization intends or desired to attain. (Baldrige)
How is data used?
Baldrige Category 4
Measurement, Analysis and Knowledge Management

4.1 How do you measure, analyze, and then improve organizational performance?

Note: Data and information from performance measurement should be used to support fact-based decisions that set and align organizational directions and resource use at the work unit, key process, department, and organization levels.

4.2 How do you manage your organizational assets, information, and information technology infrastructure?

4.2 a.(2) How do you use your knowledge and resources to embed learning in the way your organization operates?
Which came first; data or performance?
It doesn’t matter.

In Quality they are mutually dependent. You can’t have one without the other.

Principle 1:

Data and Performance are Mutually Dependent.
An effective QMS must have both.

An effective leadership system must have both.
An effective strategic deployment must have both.
An effective business plan must have both.
An effective improvement project must have both.
An effective audit program must have both.
An effective personal growth program must have both.
Table Question…
How often does data and information shape your life?

• Daily/ Hourly/ Minute to Minute
• Weather/ Travel/ Coats
• Budget/ Income
• Time/ Time zones
• $Food costs/ #Calories/ %Nutrients
Data can’t make things better, but data helps us decide what needs to be better.
Principle 2
Expect data to change.

Metrics are the most volatile category of a QMS.

WHY?
Table Question:
What changes have you seen in data and information in the last 3 -5 years?
As the unknowns become known, we must adjust the data.

There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns. There are things we don't know we don't know.

(Donald Rumsfeld)
Table Question…

What brand spanking new data requirement/request has presented itself in the last 30 days in your organization?

And what was the time frame given to meet that requirement?
Principle 3
Tell the story simply using data.

Or... You Have A bruised rib.
Story..

1. Here’s the undesired situation.
2. Here’s how we know the undesired situation exists.
3. We need to change from an undesired situation to a desired outcome.
4. Here’s what the desired outcome should look like.
5. Here’s how we will know we have achieved the desired outcome.
Which tells the story simply?

This one?

Or this one?
How about here…

This one?

Or this one?

**MUTAMYCIN®**

[mū "mē-"mē'-sīn]  
(mitomycin for injection) USP

**DOSAGE AND ADMINISTRATION**

Mutamycin should be given intravenously only, using care to avoid extravasation of the compound. If extravasation occurs, cellulitis, ulceration, and slough may result.

Each vial contains either mitomycin 5 mg and mannitol 10 mg, mitomycin 20 mg and mannitol 40 mg, or mitomycin 40 mg and mannitol 80 mg. To administer, add Sterile Water for Injection, 10 mL, 40 mL, or 80 mL, respectively. Shake to dissolve. If product does not dissolve immediately, allow to stand at room temperature until solution is obtained.

After full hematological recovery (see guide to dosage adjustment) from any previous chemotherapy, the following dosage schedule may be used at 6- to 8-week intervals:

- 20 mg/m^2 intravenously as a single dose via a functioning intravenous catheter.

Because of cumulative myelosuppression, patients should be fully reevaluated after each course of Mutamycin, and the dose reduced if the patient has experienced any toxicities. Doses greater than 20 mg/m^2 have not been shown to be more effective, and are more toxic than lower doses.

The following schedule is suggested as a guide to dosage adjustment:
What about here?

Being told you have a broken leg?

or seeing a picture of your broken leg?
Visuals are key to simplifying and sharing the story.

Without visualizing your story, the project may be unsupported, ineffective and you might miss the boat altogether.
Principle 4
Identify your starting point.

35.113281, and 106.621216
Latitude/Longitude
Options available to help.

• Research and study the data, if data exists.
• Engage in a first, second or third part audit to gain understanding.
• Solicit input, feedback from those impacted.
Starting points must be based in fact. Find out.

Without knowledge, and as human beings... we tend to think that ourselves, our children, our department, our organization, etc. as performing better than it actually is.

Starting points can be intimidating, shocking, depressing, surprising, disappointing etc....but the message is KNOW your starting point.
Just the facts....

“I never guess. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts.”

Sir Arthur Conan Doyle
(1859 - 1930)
The Sign of Four
A Scandal in Bohemia
Phelps Wins 7th Gold With 0.01 to Spare

Michael Phelps, in lane five, takes his last breath as he hits the wall for his 7th gold medal in Beijing.

Credit Doug Mills/The New York Times By KAREN CROUSE AUG. 15, 2008

- What is the desired outcome?
- Is it gaining a better understanding?
- Is it a change in behavior?
- Is it a change in thinking?
- Less risk?
- Better efficiency?
- Lower numbers? Higher numbers?
Table Question

Is your organization...

a) better at identifying the starting point or
b) better at identifying what success looks like

Provide table ratio
Keep in mind…

1. What you stop doing is just as important as what you start doing.

2. Identify the process(es) that impact the defined desired outcome.

3. Identify the data needed to understand if changes you make to the process(es) are leading to the desired outcome.

4. To change the outcome, you must change the process.
Principle 6: Choose data carefully.

P.S. You don’t need to know everything.
Who said… *What gets measured gets managed…?* Compliance, Process, Workload…etc.

"There is nothing so useless as doing efficiently that which should not be done at all."

-Peter F. Drucker
Let’s use an common example…

I want to lose 10 pounds and keep it off..

Using our fact-based story.

1. Undesired situation: I’m gaining weight.

2. Here’s how I know: 5 out of 5 pants in my closet are too tight when I put them on and the scale says I’m 10 pounds more than I was last year.

3. Transformation: I need to stop gaining weight and lose 10 pounds.


5. How will I know I’m successful? I will try on 5 out of 5 pants for fit and weigh myself on the scale for weight loss from identified starting point. If I’ve lost 10 pounds and pants fit nicely then I have been successful.
Next, choose data carefully.

Is losing 10 pounds and getting pants to fit about the process or the outcome?

THE PROCESS
And yet, many people measure weight loss by looking at the scale. And what does the scale offer?

THE OUTCOME
This is the difference between Correction and Corrective Action. This is why so many improvement plans fail or fail to be sustained. The data focuses on correction - the outcome… rather than on the process and hardwiring in the change which is Corrective Action.

The common mistake made, is singularly using Outcome Data when one should be focusing on Process Effectiveness Data first.
Use Process Effectiveness Data

Instead… the data measured must be based in the process.

• For example: I will consume no sugar between noon and midnight everyday and I will walk 2 miles 3 times/wk between today and Dec. 1st. If I accomplish these actions - I have succeeded.

• Sure, I will know I have lost 10 pounds by what the scale says on Dec 1, but it cannot be sustained unless the process is altered.

This is the difference between correction and corrective action.
Benchmarking: Becoming the best.

Comparative data - Must have to be top performing.

Top Box- Strongly Agree is really what you are looking for!
When you Agree your meal was satisfactory, what are you really saying? NOTHING

What table tells you more?
There are well documented processes and internal controls in place to avoid risk to employees.

<table>
<thead>
<tr>
<th>Location 1</th>
<th>Location 2</th>
<th>Location 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not/Applicable – 5</td>
<td>Not/Applicable – 5</td>
<td>Not/Applicable – 7</td>
</tr>
<tr>
<td>Strongly Disagree - 0</td>
<td>Strongly Disagree-1</td>
<td>Strongly Disagree-1</td>
</tr>
<tr>
<td>Disagree – 5</td>
<td>Disagree – 1</td>
<td>Disagree – 4</td>
</tr>
<tr>
<td>Neutral – 19</td>
<td>Neutral – 6</td>
<td>Neutral – 5</td>
</tr>
<tr>
<td>Agree – 58</td>
<td>Agree – 22</td>
<td>Agree – 15</td>
</tr>
<tr>
<td>Strongly Agree - 44</td>
<td>Strongly Agree - 13</td>
<td>Strongly Agree - 9</td>
</tr>
</tbody>
</table>

There are well documented processes and internal controls in place to avoid risk to employees.

<table>
<thead>
<tr>
<th>Location 1</th>
<th>Location 2</th>
<th>Location 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>66% did not strongly agree</td>
<td>73% did not strongly agree</td>
<td>79% did not strongly agree</td>
</tr>
</tbody>
</table>
Link data to the desired behaviors.

- Decide what processes are needed to support the desired outcome.
- Make this an open inclusive process. ASK
- How will behaviors and actions be consistently measured?
- What processes must be performed precisely?
- Document what was decided.
Implied expectations.

“Metrics can tell you what users like and dislike, but they can’t tell you what they dream about.”

Scott Gursky, game designer
and measure the right thing!

"DON'T MISTAKE ACTIVITY FOR ACHIEVEMENT"
- JOHN WOODEN
Principle 7
No Chasing Metrics

Many metrics reflect process outcomes. Better processes, better training, better compliance may be metrics.

But remember....Change the process to change the outcome.
What is the best way you have found to avoid chasing metrics?
Quality is the antonym of Inertia, Why?
Principle 8 LEARN!
What does it mean to learn?

Definition of Learn by Merriam-Webster

To \textit{gain knowledge or skill} by studying, practicing, being taught, or experiencing something. : to cause (something) to be in your memory by studying it. : to hear or be told (something) : to find out (something)
Secret to it all...

Only when deliberate, disciplined and consistent use of data and quality principles/ concepts/ tools are used to learn, make decisions and improve; will one attain the highest level of performance, affectionately known as excellence.
Resources spent on Data

Resources spent on Improving
Table Question…

What % of the data your organization gathers, tracks and reports on… are used in your organization’s learning and improvement loops?
“Every system is perfectly designed to achieve exactly the results it gets”.

Paul Batalden Dartmouth Medical School Director,
Based on a quote from W. Edward Deming (1990)
In 2017

How will you approach data differently?
The 8 Chicken and Egg Principles

1. Data and Performance are mutually dependent.
2. Expect data to change.
3. Tell the story simply using data.
4. Identify your starting point.
5. Define what success looks like (end point).
6. Choose data carefully.
7. Avoid chasing metrics.
8. LEARN!
Remember!
Stop doing what’s inefficient.

Once unknowns become known, move on.
Use the 8 Principles…don’t forget to use your support system…and Go for Excellence!