Welcome!

**Quality Improvement Tools for Improving Public Health Practice**

will begin shortly
Quality Improvement Tools for Improving Public Health Practice

July 17, 2013

Visit us: www.doh.wa.gov/PHIP/perfmgtcenters
Which Center for Excellence Region are you located in?

A. Department of Health  B. Tacoma-Pierce County Health Department  
C. Spokane Regional Health District  D. Outside Washington State

Washington’s Federally Recognized Tribes

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Today’s Learning Objectives:

• Upon completion participants should be able to:
  – Review and practice **four** important Quality Improvement Tools to apply as part of their QI teams
    • Process Mapping
    • Cause and Effect Diagram
    • 5-S
    • Prioritization Matrix
  – Describe how they will apply at least two of the tools in their QI work
What’s the Difference: QI Method vs. QI Tool

**Assess**
- Affinity diagrams
- Prioritization tools

**Define**
- Project definition forms
- Process maps

**Analyze**
- Cause & Effect
- Pareto charts
- Data collection
- Run charts
- Histogram
- Detailed flow charts

**Change**
- Prioritization tools
- Gantt chart
- Process maps

**Evaluate**
- Run charts
- Control charts

**PLAN**
- **DO**
- **STUDY**
- **ACT**
5S + Safety
A Lean Tool
5S: Where are we?

- Assess
- Define
- Analyze
- Change
- Evaluate

PLAN
DO
STUDY
ACT

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Participant poll

• Have you used or currently use the 5S approach to quality?
  A. Yes
  B. No
  C. Unsure
**5S+Safety** is a strategy to keep our workplace safe and in order.

- You have everything you need.
- You need everything you have.
- You can see everything clearly belongs where it is.
5S+Safety

1-Sort

2-Simplify

3-Sweep

4-Standardize

5-Self Discipline

Safety
5S Exercise: Cat Herding

**Scenario:** (Application of Lean.org exercise “The 5S numbers game”)
You are a cat rancher. During a recent windstorm, your fence blew down, and your 49 prized “show” cats have been mixed in with another group of regular “farm” cats. You need to find each of your “show” cats and put them in their corral. Because cats have a distinct sense of social hierarchy, you must herd each cat in order of their social status. Fortunately, each cat wears a sweater with its number on it.
Sort

Separate necessary from unnecessary

– Establish criteria
– Identify unnecessary items
– Move unnecessary items to holding area to reside for a limited time
– Conduct an initial cleaning
Simplify

“A place for everything.”

• Arrange workplace
  – Identify key equipment and supplies
  – Determine location for each item
  – Visual management (labels, folders, etc.)
  – Document layout, equipment, supplies
Sweep

“Everything in its place.”

• Clean area
• Determine acceptable performance
• Mark equipment
• Create visual indicators to “sweep”
• Perform daily cleaning
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Standardize

“Sort, simplify, and sweep always.”

• Determine and agree upon best practice
  – Document
  – Communicate
  – Make it clear and simple
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Self-Discipline

“Make 5S+Safety a habit”

• Maintain the gains and improve
  – Determine 5S+Safety level of achievement
  – Perform routine checks
  – Analyze results of routine checks
  – Measure progress and plan for continuous improvement
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## Public Health Performance Management Centers for Excellence

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+Safety

“Safety is Job #1.”

- Correct safety hazards (ergonomics, environment, etc.)
  - Identify
  - Investigate
  - Correct
  - Communicate
Participant poll

• How likely are you to start using the 5S tool?

  A. So cool, I’m gonna 5S my work space and garage!
  B. Never gonna happen.
  C. Intrigued but need more info.
  D. Might give it a try.
Process Mapping
Participant poll

• Have you used or currently use process mapping for quality improvement projects?
  
  A. Yes
  B. No
  C. Unsure
Process Map: When would I use this tool?

Plan: Assess
Define
Analyze
Change
Evaluate

Do

Study

Act

Recipe

Dish: __________________________
Serves: _________________________
Focus on Work Process

• Improve overall process, not just one part
  – 85% of poor quality is a result of poor work processes, not of staff doing a bad job
  – Processes often “go wrong” at the point of the “handoff”
  – Some of the most complex processes are the result of creating a “work around”
3 Views of a Process

- The way you want it to be (simple)

- The way you think it is (slightly more complex)

- The way it really is
Flow Charting

When would I use this tool?

*Flow charting can be used for a variety of purposes*

- **High Level flow** charts are useful to frame the scope and boundaries of a project, to connect activities to outcomes (logic model), etc.

- **Matrix flow (swim lane/functional)** charts are good for framing analysis and for communicating a standard in an easy to follow format

- **Detailed flow** charts are good for analyzing a process, or for designing and communicating solutions, or for establishing a standard.
High Level Flow
High Level Flow

- Documents start and end of the process
- Documents primary objectives of the process
- 4-7 steps (typically)
- More conceptual

Create request ➔ Approve request ➔ Create order ➔ Receive order
High Level Flow

Healthy Youth Survey data processing procedure

Data owner: Liz

(1) DOH sets date for release

(2) Call for password and ask for STATA format

(3) Download from FTP site

(4) Saved in HYS_year folder labeled data_year

(5) Lock data files (read only)

(6) Users create own copy of files and save in personal folder for analysis

Example courtesy of Tacoma-Pierce County Health Department
High Level Flow

Contracted Service Conceptual Flow

1. Determine Need for Service
2. Determine scope of work and budget
3. Identify contractor options
4. Select Contractor
5. Prepare & sign written contract
6. Set up for payment
7. Bid & document as appropriate
High Level Flow

Septic Application and Permitting High-Level Process Flow

1. PHA starts building a file and inputting data into the Sewage Database 7 min/app
2. EHS completes an “OSS Application Review Service 04” of the proposal 75 min/app
3. EHS completes a “Pre-Permit Site Visit Service 05” 59 min/app
4. EHS completes a post site visit review “OSS Application Review Service 04” (see step 2 for time)
5. PHA Processes the permit (data entry) 5 min/app
6. PHA issues and mails the start permit 7 min/app
7. EHS Completes a “Final Inspection Service 07” and “As-Built Review 08” 81 min/app (77 for final and 4 for As-built)
8. PHA Closes the File (data entry and filing) 3 min/app

EHS = Environmental Health Specialist
PHA = Public Health Associate
Red Font = 18 data points (so not final#)

Example courtesy of Grant County Health District
Swim Lane/Functional/Matrix Flow
Swim Lane/Functional/Matrix Flow

• Documents objectives of process and what department/function is accountable
• Documents the major steps necessary to complete the objectives
• Documents relationships and hand-offs between functions/departments
• Still somewhat conceptual
• Though ... can add as much detail as you like
Spaghetti Diagrams

A form of flow charting from Lean
Value Stream Maps

Characteristics of a VSM
Value Stream Maps – Current and Future State

Contracted Service Conceptual Flow

- Determine Need for Service
- Determine scope of work and budget
- Identify contractor options
- Select Contractor
- Prepare & sign written contract
- Set up for payment
- Bid & document as appropriate

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Value Stream Maps – Current and Future State

• A Lean tool for work teams
• A visual tool showing how a product moves through the value stream
• Focus on improving the whole value stream rather than optimizing pieces of it.
• Created by those who actually do the work
• Time consuming to create
• Displays time spent waiting, as well as time spent touching the product
• Highlights wastes like rework, waiting, inspection, motion, batching, and errors
• Future state map shows improved future process and guides implementation
Value Stream Maps – Current and Future State

TPCHD-Data requests

Example courtesy of Tacoma-Pierce County Health Department
Value Stream Maps – Current State

DOH-HIV Early Intervention

Example courtesy of WA State Dept of Health
Value Stream Maps – Future State

DOH-HIV Early Intervention
Detailed Process Flow Chart

• Describes every step and decision
• Calls out documents, data bases, etc.
• *Shows reality* of process: rework loops, undefined specifics, redundancy
• Good for detailed analysis (and design)
• Very time consuming to create
• Sometimes leads to documenting more than is necessary
• Can be hard for others to follow/understand
What to look for:

- Re-work Loops – especially long ones
- Multiple inspections
- Wait states
- Too many steps; Hand-offs
- Variation

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Detailed Process Flow Chart Shapes

- **Terminator:** Start-Stop
- **Step/Action**
- **Decision/Inspection**
- **Wait**
- **Data Base**
- **Document**
- **Unclear/highly variable**
- **Go to/Connector**

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Public Health Performance Management Centers for Excellence

Detailed Process Flow Chart Shapes
Flow Charting Steps

• Define start and end of process
• Complete high-level flow (conceptual) with 4-7 objectives in between
• Add actions/steps to each objective as needed (consider matrix format)
• Add fine detail* as needed (e.g., inspections/decisions, re-work loops, documents, data bases, etc.)

*You may not need fine detail for every objective! Avoid flow charting the world.
Flow Charting

TPCHD-STD Surveillance
Flow Charting

TPCHD-STD Surveillance
Root Cause Analysis

Cause and Effect Diagram

5 Whys?

Fishbone Diagram

Ishikawa Diagram
Participant Poll

Have you used or currently use root cause analysis approach to quality improvement projects?

A. Yes
B. No
C. Unsure
Root Cause Analysis: Where are we?

- Plan
- Do
- Study
- Act

Assess → Define → Analyze → Change → Evaluate
The Power of Root Cause Analysis

W. Edwards Deming transformed quality control processes by applying his beliefs

– Measuring outputs/outcomes at the end ignores root cause and ensuing poor results.
– Addressing root causes through ongoing evaluation and quality improvement avoids problems and improves quality.
– Ongoing measurement with feedback loops helps processes.

The Public Health Quality Improvement Handbook, p. 22
Root Cause-Purpose

- To find the real cause of a problem or issue
- Understand the impact to the organization
- Resolve it with a permanent fix
- Encourages divergent thinking
- Demonstrates the complexity of the problem
- Encourages scientific analysis (rule-out)
- We need to determine:
  - what happened?
  - why it happened?
  - where it happened?
  - how to eliminate it?
Root cause analysis-Fishbone

TPCHD-Nurse Home Visiting
Root cause analysis-Fishbone

Vital Records
Public Health Performance Management Centers for Excellence

Help Me Grow QI Project
Example courtesy of Cuyahoga Co Ohio

Service Coordinators express difficulty in maintaining HMG Caseloads

- Can be changed or addressed
- Cannot be changed but can be mitigated
- No Control

Aim statement: Optimize and consistently maintain Service Coordinators caseload to maximize the HMG contract ($348,086).

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Root cause analysis-Fishbone

http://asq.org/learn-about-quality/causes-analysis-tools/overview/fishbone.html

Why we don’t we have more QI activities in our department?
Testing Potential Root Causes

• Once the Fishbone Diagram has been constructed, the team should interpret or test for root cause(s) by one or more of the following:
  – Look for causes that appear more than once within or across categories
  – Choose most likely root causes through an unstructured consensus or a more formal process like Multivoting or Nominal Group Process
  – Collect data on selected causes to determine relative frequencies
  – Use an analysis tool, like a Pareto Chart, to identify root cause
Don’t miss an opportunity to share your story!
Prioritization Matrices

“If You Don't Know where You Are Going, Any Path Will Do.”

The Cheshire Cat, in Lewis Carroll's *Alice In Wonderland*
Why use them?

• Decision tools are used to:
  – *Narrows* decisions
  – Limit “pet projects”
  – Increases transparency and validity of decision making
  – Consensus fosters buy-in
  – Provides focus
  – Other reasons?
For what would I use them?

- CHA/CHIP
- Strategic plan
- Buying a car? Taking a vacation? Best wine?
- Prioritizing summer projects
- Quality improvement projects
- Other ideas?
Decision tools: Where are we?

- Assess
- Define
- Analyze
- Change
- Evaluate

Plan: DO

Study: ACT

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How do I use it?

• Conduct a prioritization process to identify the higher priority issues to improve
• Use to identify best solution for implementation
• Select leaders and staff to participate in prioritization process
• Determine tool/process and criteria for prioritizing issues
• Select high-priority areas/solutions
Types of Decision Tools

Low stakes:
- Consensus
- Control & Influence
- Nominal Group Technique

High stakes:
- Criteria Matrix
- Prioritization Matrices
Types of Decision Tools

Low stakes
- Consensus
- Nominal Group Technique

High stakes
- Control & Influence
- Criteria Matrix
- Prioritization Matrices
Control and Influence

• This is a conceptual tool to help give a team guidance on what to focus on when trying to pick a topic to improve

• They should focus where they have both control and knowledge

• In Public Health we may work more in the influence part of the circle or quadrant
Public Health Performance Management Centers for Excellence

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## Public Health Performance Management Centers for Excellence

**Example courtesy of Spokane Regional Health District**

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<thead>
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<th>Knowledge</th>
<th>Control</th>
<th>No Control</th>
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<td>No Knowledge</td>
<td>Improving outbreak mitigation (decrease outbreak duration in LTC)</td>
<td>Reduce staff GI attack rate Reduce point source outbreaks Ensure LTC facilities are practicing infection control to community standards</td>
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<tr>
<td>No Knowledge</td>
<td>Improve identification of high risk (ill) workers</td>
<td>Improve infection control training program within the nursing assistant curriculum</td>
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GI illness in long-term care facilities
Types of Decision Tools

Low stakes
- Consensus
- Control & Influence
- Nominal Group Technique

High stakes
- Criteria Matrix
- Prioritization Matrices
Choosing Criteria

• Why? Options are narrowed through a systematic approach of comparing choices by applying criteria

• Possible criteria
  – Improved quality
  – Lower cost
  – Strategic
  – Feasibility
  – Repeatability (i.e. volume)
  – Contribution to meeting Standards/Accreditation
  – Measurable
  – Scope or span across division
  – Risk
  – Impact
  – Others?
## Criteria Matrix Tool

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<tr>
<td>2. Engage Community</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CHIP</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Food Safety</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Family Planning</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Quality Improvement Project Ideas

| Project Idea                                                                 | High 3 | Med 2 | Low 1 | High 3 | Med 2 | Low 1 | High 3 | Med 2 | Low 1 | High 3 | Med 2 | Low 1 | High 3 | Med 2 | Low 1 | Score | Score | Score | Score | Score | TOTAL |
|------------------------------------------------------------------------------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| Improve functionality and reduce per work for travel authorizations         | 1      | 14    | 2.0   | 13     | 1.9   | 15    | 2.3    | 8.7   |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve purchase request process                                            | 1      | 13    | 1.9   | 10     | 1.4   | 14    | 2.0    | 7.8   |       |        |        |       |       |        |       |       |       |       |       |       |
| Reduce line item expenditures (vehicles, cell phones, etc.)                  | 1      | 13    | 1.9   | 17     | 2.4   | 15    | 2.3    | 9.6   |       |        |        |       |       |        |       |       |       |       |       |       |
| Reduce time spent on things we don’t really do (mold, WIC questions, etc.)   | 1      | 13    | 1.9   | 12     | 1.7   | 15    | 2.1    | 9.1   |       |        |        |       |       |        |       |       |       |       |       |       |
| Create streamlined data reporting—EH, food handlers, inspections, etc.       | 3      | 20    | 2.5   | 17     | 2.4   | 18    | 2.6    | 13.1  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve efficiency and effectiveness of staff meetings                       | 1      | 18    | 2.6   | 14     | 2.0   | 14    | 2.0    | 10.0  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve effectiveness of smoking in places enforcement procedures           | 3      | 13    | 1.9   | 11     | 1.6   | 11    | 1.6    | 9.6   |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve effectiveness of nonmental health enforcement                       | 3      | 17    | 2.4   | 14     | 2.0   | 11    | 1.6    | 11.0  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve business practices around compliance                                | 1      | 15    | 2.1   | 11     | 1.6   | 11    | 1.6    | 8.0   |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve effectiveness and quality of vaccine lot #                         | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve accuracy of vaccine lot #                                            | 3      | 17    | 2.4   | 13     | 1.9   | 8     | 1.1    | 9.9   |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve efficiency of vaccine lot #                                         | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve accuracy of vaccine lot #                                            | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve efficiency of vaccine lot #                                         | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve accuracy of vaccine lot #                                            | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve efficiency of vaccine lot #                                         | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve accuracy of vaccine lot #                                            | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
| Improve efficiency of vaccine lot #                                         | 2      | 19    | 2.7   | 13     | 1.9   | 9     | 1.3    | 10.4  |       |        |        |       |       |        |       |       |       |       |       |       |
Prioritization Matrix Types

• Full analytical criteria method
  – Smaller teams
  – Few options
  – Relatively few criteria
  – Complete consensus needed
  – Stakes are high if plan fails

• Consensus criteria method
  – Larger teams
  – Options are many
  – Significant number of criteria
  – Quick consensus needed

• Combination
  – Interrelationships among the options are high
  – Finding option with greatest impact critical

PH Memory Jogger, pgs. 105–115
How to Use Prioritization Matrix

• Agree on goal statement for prioritization
• Use potential topics from assessment results, brainstorming or affinity diagram
• Develop decision criteria for paired comparisons, e.g.:
  – Improved quality
  – Lower cost
  – Improved outcomes
  – Better service
• Draw table on flip chart, label the rows with each of the criteria and column labels should correspond to row labels
• Weight each criterion against each other

Public Health QI Handbook, pgs. 204–207
How to Use Prioritization Matrix

• Compare ALL options relative to each weighted criterion. Take topics/issues and ask:
  – Does X contribute more than Y in achieving the goal, based on our criteria?
• Once you have agreement on the answer, then decide how much:
  – 1 = **Equally** important
  – 5 = **More** important
  – 10 = **Much more** important
  – 1/5 = **Less** important
  – 1/10 = **Much less** important
• Assign agreed-upon value to the issue contributing more and the reciprocal score to the other
• Total the option scores
• Create one last matrix, compare each option based on all criteria combined
  – Multiply the criteria weighting by the option scores
• Choose best option across all criteria
### Example of Prioritization Matrix
(Each issue against Importance criterion)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health Data</td>
<td></td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>2. Engage Community</td>
<td>1/5</td>
<td></td>
<td>1</td>
<td>5</td>
<td>10</td>
<td>16.2</td>
</tr>
<tr>
<td>3. CHIP</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>4. QI Plan</td>
<td>1/5</td>
<td>1/5</td>
<td>1/5</td>
<td></td>
<td>5</td>
<td>5.6</td>
</tr>
<tr>
<td>5. Research Processes</td>
<td>1/10</td>
<td>1/10</td>
<td>1/10</td>
<td>1/5</td>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>
QIG
(Quality Improvement Geek)
You might be a QIG if...

- Your colleagues says, “It’s [missing data] messing up my run chart!” and you are totally sympathetic.
- You celebrate your first histogram with a glass of wine.
- You wake up excited for a Quality Council meeting.
- You use a prioritization matrix to help you decide what car to buy.
Example Exercise

• Background
  – Family of four
  – Two kids in car seats
  – Have two-seater stroller
  – Like to go camping
  – We’re not rich!
Example Exercise

1. Agree on goal statement
   – Choose the best car to purchase for my family.

2. Create list of criteria
   – Cool factor
   – Space
   – Cost
   – Tow capacity

3. Using an L-shaped matrix, weight each criterion against each other
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Cool factor</th>
<th>Space</th>
<th>Cost</th>
<th>Tow capacity</th>
<th>Row Total</th>
<th>Relative Decimal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cool factor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Space</td>
<td></td>
<td></td>
<td>1</td>
<td>1/5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tow capacity</td>
<td>5</td>
<td>1/5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 = Equally important
5 = More important
10 = Much more important
1/5 Less important
1/10 = Much less important

Grand Total
Example Exercise

4. Compare ALL options relative to each weighted criterion
   – There will be as many options matrices as there are criteria to be applied
   – In this example, we are considering the relative merits of the Chevy Suburban, the Dodge Caravan, and the Mini Cooper
   – Use same rating scale but customize the wording for each criteria

   1 = Equally …

   5 = More …

   10 = Much more …

   1/5 Less…

   1/10 = Much less…
### Car Exercise - Option vs. “Cool” Criterion

<table>
<thead>
<tr>
<th>Cool</th>
<th>Chevy Suburban</th>
<th>Dodge Caravan</th>
<th>Mini Cooper</th>
<th>Row Total</th>
<th>Relative Decimal Value (weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chevy Suburban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dodge Caravan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mini Cooper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 1 = **Equally** cool
- 5 = **More** cool
- 10 = **Much more** cool
- 1/5 = **Less** cool
- 1/10 = **Much less** cool

Grand Total

---

Visit our website: [www.doh.wa.gov/PHIP/perfmgtcenters](http://www.doh.wa.gov/PHIP/perfmgtcenters)
## Car Exercise - Option vs. “Space” Criterion

<table>
<thead>
<tr>
<th>Space</th>
<th>Chevy Suburban</th>
<th>Dodge Caravan</th>
<th>Mini Cooper</th>
<th>Row Total</th>
<th>Relative Decimal Value (weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chevy Suburban</td>
<td></td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>.59</td>
</tr>
<tr>
<td>Dodge Caravan</td>
<td>1/5</td>
<td></td>
<td>10</td>
<td>10.2</td>
<td>.40</td>
</tr>
<tr>
<td>Mini Cooper</td>
<td>1/10</td>
<td>1/10</td>
<td></td>
<td>.2</td>
<td>.01</td>
</tr>
</tbody>
</table>

1 = Equal space
5 = More space
10 = Much more space
1/5 = Less space
1/10 = Much less space

Grand Total: 25.4 1.0
### Car Exercise - Option vs. “**MPG**” Criterion

<table>
<thead>
<tr>
<th>MPG</th>
<th>Chevy Suburban</th>
<th>Dodge Caravan</th>
<th>Mini Cooper</th>
<th>Row Total</th>
<th>Relative Decimal Value (weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chevy Suburban</td>
<td>1/10</td>
<td></td>
<td>1/10</td>
<td>.2</td>
<td>.01</td>
</tr>
<tr>
<td>Dodge Caravan</td>
<td>10</td>
<td>1/5</td>
<td></td>
<td>10.2</td>
<td>.40</td>
</tr>
<tr>
<td>Mini Cooper</td>
<td>10</td>
<td>5</td>
<td></td>
<td>15</td>
<td>.59</td>
</tr>
</tbody>
</table>

**Legend:**

- 1 = **Equal** MPG
- 5 = **More** MPG
- 10 = **Much more** MPG
- 1/5 = **Less** MPG
- 1/10 = **Much less** MPG

**Total:**

- 25.4
- 1.0
### Car Exercise - Option vs. “Tow Capacity” Criterion

<table>
<thead>
<tr>
<th>Tow</th>
<th>Chevy Suburban</th>
<th>Dodge Caravan</th>
<th>Mini Cooper</th>
<th>Row Total</th>
<th>Relative Decimal Value (weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chevy Suburban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dodge Caravan</td>
<td>1/5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mini Cooper</td>
<td>1/10</td>
<td>1/5</td>
<td></td>
<td>.3</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 = Equally capable or towing
5 = More capable of towing
10 = Much more capable of towing
1/5 = Less capable of towing
1/10 = Much less capable of towing

Row Total: 20.5
Relative Decimal Value: 1.0
## Car Exercise - Summary Matrix

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Cool factor (weight)</th>
<th>Space (weight)</th>
<th>Cost (weight)</th>
<th>Tow capacity (weight)</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Options</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chevy Suburban</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>Sum</td>
</tr>
<tr>
<td>Dodge Caravan</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>Sum</td>
</tr>
<tr>
<td>Mini Cooper</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>option rating X criteria weight</td>
<td>Sum</td>
</tr>
</tbody>
</table>

1 = **Equally** important  
5 = **More** important  
10 = **Much more** important  
1/5 = **Less** important  
1/10 = **Much less** important

**Grand Total**
SRHD Quality Council: Prioritization Exercise

• Set the stage for prioritization
  – Role of our Quality Council
  – Developed and reviewed process for completion of QM projects

• Assessed for potential quality improvement projects
  – Aggregate customer satisfaction data
  – Logic model reviews and division reports
  – Performance measure data
  – Accreditation findings and recommendations
  – Strategic planning goal group progress

• Used the Quality Council’s discussion board to generate QI project ideas
Spokane Regional Health District Quality Council Prioritization Exercise

- Set the stage for prioritization
  
  Discussed role of the QC
  
  Reviewed process for QM project completion

- Reviewed rolled-up agency performance information
  
  - Aggregate customer satisfaction data
  
  - Division logic model reviews
  
  - Performance measure data
  
  - Accreditation findings
  
  - Strategic planning goal progress

- Used the QC discussion board to generate QM project ideas
  
  - Quality improvement
  
  - Quality planning
Spokane Regional Health District Quality Council Prioritization Exercise

Process
1. Review ground rules
2. Agree on goal statement
3. Review and gain consensus on list of decision criteria and their definitions
4. Assign weighting to criteria reaching consensus using a prioritization matrix
5. Review QM opportunities - eliminate as needed
6. Independently ranking each Quality Management Opportunity (using a SurveyMonkey survey)
7. Co-chairs to tabulate results
8. Results reported out via discussion board with opportunity for comment
9. Process and outcome debrief at August QC meeting
10. Final recommendation to Executive Leadership Team
<table>
<thead>
<tr>
<th>Project Idea</th>
<th>Type of Project</th>
<th>Source of Project Idea</th>
<th>Problem Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create online food establishment application tool</td>
<td>Quality Improvement Project</td>
<td>Other</td>
<td>The current food establishment application process is paper based. EPH would like to streamline the application data, and it should make it easier to renew.</td>
</tr>
<tr>
<td>Decrease Smoking Rates</td>
<td>Quality Improvement Project</td>
<td>Other</td>
<td>Decrease smoking rates among postpartum women in the NFP and WIC programs. For example, reports, fliers, procedures, minutes and other documentation that did not demonstrate that we met a measure. Development/implementation of documentation number of documents available to submit for accreditation.</td>
</tr>
<tr>
<td>Develop Agency Documentation Standards</td>
<td>Quality Improvement Project</td>
<td>Accreditation/Standards</td>
<td>According to aggregate agency data from the presentation evaluations, staff could not be content to meet the level of audience. Interactive exercises and activities were rare. Coalition surveys indicate a need for facilitation skills training. There are techniques towards goals, and improved follow-up from members.</td>
</tr>
<tr>
<td>Facilitation and Presentation Skills Training</td>
<td>Quality Improvement Project</td>
<td>Other</td>
<td>Currently, our agency and BOH does not have consistent and standardized processes for setting policies. Additionally, two of our four strategic planning goal groups have begun to work with our agency. This would help further the strategic planning goals related to improving agency and agency health priority areas.</td>
</tr>
<tr>
<td>HiAP Decision Support Process &amp; Tool</td>
<td>Quality Planning Project</td>
<td>Strategic Planning</td>
<td>In 2012, only 18.5% of customer service surveys, 30% of collaborative partnerships were run through CHAPE. These percentages are either the same or less than the previous year. There are a challenge in tracking and trending data and does not adhere to agency protocol.</td>
</tr>
<tr>
<td>Increase % of surveys and evais run through CHAPE</td>
<td>Quality Improvement Project</td>
<td>Division Report</td>
<td>To increase the percentage of clients in WIC and NFP who are still breastfeeding at 3 months of age.</td>
</tr>
<tr>
<td>Increase Breastfeeding Rates</td>
<td>Quality Planning Project</td>
<td>Logic Model</td>
<td>Our current website site at SRHD.org has been in place for several years. To update the site’s interface design. With proper design, the site will be able to create a wellness tool for staff on our intranet.</td>
</tr>
<tr>
<td>SRHD.org Website Interface Update</td>
<td>Quality Improvement Project</td>
<td>Other</td>
<td>WIC would like to increase access to healthy nutrition advise the community.</td>
</tr>
<tr>
<td>Wellness tool for staff</td>
<td>Quality Planning Project</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>CRITERIA</td>
<td>Risk/Impact</td>
<td>Feasible</td>
<td>Repeatable</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>Risk/Impact</td>
<td>5</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Feasible</td>
<td>1/5</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Repeatable</td>
<td>1/10</td>
<td>1/5</td>
<td>1/5</td>
</tr>
<tr>
<td>Strategic</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Random Plan</td>
<td>1/5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Other*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 = Equally Important
5 = More Important
10 = Much More Important

1/5 = Less Important
10/5 = Much less Important
Polling Scenario

A. High level
B. Matrix flow (swim lane/functional)
C. Value stream mapping
D. Detailed

**Scenario:** You are developing a new process for IT help-desk work assignments.

**Question:** What type of flow chart would you use?
Polling Scenario

Scenario: Program managers have complained to the HR department that it takes too long to process new hires after accepting a job offer.

Question: What type of flow chart would you use?

A. High level
B. Matrix flow (swim lane/functional)
C. Value stream mapping
D. Detailed
Polling Scenario

A. Prioritization matrix
B. High level flow chart
C. Lean 5S
D. Cause & Effect

Scenario: The maintenance manager at the health department is working on a QI project to reduce supply (cleaning and maintenance) costs of the agency. Through their Analysis phase, they learned that a great deal of different supplies get ordered by different programs, that then sit on the supply shelves, taking up limited space, and then get thrown out unused or hardly used when they expire.

Question: What might be one of the tools they use in the next phase of their project? Why?
Polling Scenario

A. Logic model
B. Control & Influence
C. Prioritization matrix
D. Cause & Effect

Scenario: The Wellness committee at Any County Public Health is conducting a QI process to increase the level of physical activity of staff. They are getting ready to pilot (test and evaluate) one of the following interventions among 2 programs to get some quick feedback before rolling out to agency next week: onsite yoga class, pedometer loan program, discounted gym membership, agency softball team.

Question: What might be one of the tools they use in the next phase of their project? Why?
Additional Resources

• Performance Management Centers for Excellence Web site: www.doh.wa.gov/PHIP/perfmgtcenters


• Quality Toolbox, Tague, N., Milwaukee, WI: ASQ Quality Press; 2005

THANKS FOR YOUR PARTICIPATION!
Please complete the evaluation you receive via email.

Join us Next Time:
September 9, 2013
Performance Measures in Quality Improvement

The contents of this presentation were selected by the author and do not necessarily represent the official position of or endorsement by the Centers for Disease Control and Prevention.
What questions do you have?