Developing, Monitoring, and Using Performance Measures

November 9, 2011
Learning Objectives

• Developing Performance Measures
  – Understand why we measure performance
  – Learn types of performance measures
  – Learn how to identify a “good” measure
  – Practice writing performance measures

• Monitoring Performance Measures
  – Learn about two models of monitoring/reporting

• Using Performance Measures
  – Understand the difference between performance management and performance measurement
  – Learn about two examples of using performance data
Beware the tower of Babel!

The collision of public health jargon, planning jargon, different QI jargon, and our own LHJ or program jargon can lead to great confusion!
What is the *difference* between Performance Management and Performance Measurement?
Performance Measurement

The regular collection and reporting of data to track work produced and results achieved
Performance Management is what you do with the information you’ve developed from measuring performance.
DEVELOPING PERFORMANCE MEASURES
Why We Measure Performance?

- Help guide management and decision-making processes
- Help to align with the department’s mission, vision, and strategic directions
- Provide employees with feedback on the work they are performing
- Predict future performance
- Facilitate learning and improvement
Performance measurement is not punishment!

Reward improvement and learning
Three limitations to performance measurement

- Performance data do not, by themselves, tell why the outcomes occurred; they do not reveal the extent to which the program caused the measured result.
- Some outcomes cannot be measured directly—proxies can help here.
- Performance measures provide just part of the information needed to make decisions.
...are quantitative indicators of performance used to show progress toward a goal or objective.

Composed of a number and a unit of measure:

Number = the degree to which a performance result is occurring overtime (how much)

Unit of measure = gives the number meaning (what)

Performance measures are tied to a target.
Types of Performance Measures

- Input Measures
- Process Measures
- Output Measures
- Outcome Measures
Examples of Measures (Please unmute)

- Percentage of children with age-appropriate immunization levels at age two.
- Number of days between a request for services and an actual meeting with a service provider.
- Percentage of assessed rivers, lakes, and estuaries that support beneficial uses (e.g., fishing and swimming approved).
- Number of unused certifier sheets left at end of day in Vital Records.

Please remute your phone.
Performance Measurement Development
A sequence

Goal
A broad organizational intention

Logic
I.D. Processes/Outputs
Near term/long term outcomes

Measure
I.D. quantitative measure of performance related to your logic

Objective
Measure + direction, target, timeframe

Get a baseline if you can!

Apply S.M.A.R.T.
Decrease the percent of Pierce County youth who are overweight or obese to 25% by 2016.
Decrease the percent of Pierce County youth who are overweight or obese to 25% by 2016.

Performance measure
Decrease the percent of Pierce County youth who are overweight or obese to 25% by 2016.

Direction: Performance measure
Decrease the percent of Pierce County youth who are overweight or obese to 25% by 2016.

Direction       Performance measure       Target
Decrease the percent of Pierce County youth who are overweight or obese to 25% by 2016.
Language “Check In”

Please unmute your phone

• Does your organization use the same language?
• Is there other terminology out there that’s being used to describe the same thing?

It's QUESTION TIME!!
LOGIC MODEL example

INPUT → PROCESS/ACTIVITIES → OUTPUTS → OUTCOMES

Resources
- Budget
- Staff

Services
- Training
- Education
- Counseling

Products
- Classes taught
- Educational material
- Participants served

Intermediate
- New knowledge
- Increased skills
  - Modified behavior
  - Improved condition

Please mute your phone again.
Characteristics of Performance Measures

• Meaningful
• Reliable
• Practical
• Line of sight to action
The Logic of Public Health

- We inspect restaurants.
- Conditions in the restaurants don’t create unsafe food. 
- # of inspections
- # of critical violations
- Output
- % of critical violations that are corrected within 24 hrs.
- Intermediate outcome
- Public is sold food that is safe to eat.
- So that
- Rate of food borne illnesses
- So that
- Fewer incidents of food borne illness.
- So that
- Long-term outcome

11/9/11
What makes a good performance measure?

Good measures can let you know:

- How well are you doing
- If you are meeting your goals
- If your customers are satisfied
- If your processes are stable, and
- If and where improvements are necessary
What makes an ugly performance measure?

- Measures that are events or milestones or very infrequently calculated
- Measures that monitor the ‘means’, not the ‘end’
- Measures that are actually data, not information
POLL

• Has your organization developed performance measures?
  A. Yes, extensively throughout the organization
  B. Yes, in some programs
  C. No, not at all
  D. Don’t know

It's QUESTION TIME!!
Data Description & Collection Form

<table>
<thead>
<tr>
<th>Performance measure:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Target population:</td>
<td></td>
</tr>
<tr>
<td>Numerator:</td>
<td></td>
</tr>
<tr>
<td>Denominator:</td>
<td></td>
</tr>
<tr>
<td>Which are you using—a target or benchmark?</td>
<td></td>
</tr>
<tr>
<td>What is the target/benchmark?</td>
<td></td>
</tr>
<tr>
<td>SMART objective:</td>
<td></td>
</tr>
<tr>
<td>Source of data:</td>
<td></td>
</tr>
<tr>
<td>Who will collect the information?</td>
<td></td>
</tr>
<tr>
<td>How often will the data be analyzed and reported?</td>
<td></td>
</tr>
<tr>
<td>Baseline measurement data and date(s):</td>
<td></td>
</tr>
<tr>
<td>Definitions and other comments:</td>
<td></td>
</tr>
<tr>
<td><strong>Data Description &amp; Collection Form</strong></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Performance measure:</strong></td>
<td>The rate of Chlamydia (CT) positivity at Infertility Prevention Project (IPP) sites.</td>
</tr>
<tr>
<td><strong>Target population:</strong></td>
<td>People being tested for Chlamydia</td>
</tr>
<tr>
<td><strong>Numerator:</strong></td>
<td>Positive CT tests at IPP sites</td>
</tr>
<tr>
<td><strong>Denominator:</strong></td>
<td>All CT tests at IPP sites</td>
</tr>
<tr>
<td><strong>Which are you using—a target or benchmark?</strong></td>
<td>Target</td>
</tr>
<tr>
<td><strong>What is the target/benchmark?</strong></td>
<td>8.0%</td>
</tr>
<tr>
<td><strong>SMART objective:</strong></td>
<td>Decrease the rate of CT positivity at IPP sites from 8.1% to 8.0% by the end of 2011.</td>
</tr>
<tr>
<td><strong>Source of data:</strong></td>
<td>DOH records</td>
</tr>
<tr>
<td><strong>Who will collect the information?</strong></td>
<td>Jim Marshal</td>
</tr>
<tr>
<td><strong>How often will the data be analyzed and reported?</strong></td>
<td>quarterly</td>
</tr>
</tbody>
</table>
| **Baseline measurement data and date(s):** | 2005: 10.1%  
2006: 9.3%  
2007: 10.5%  
2008: 8.6%  
2009: 8.2%  
2010: 8.1% |
| **Definitions and other comments:**    | IPP sites include TPCHD, planned parenthood, Remann hall and others. |
Establish Targets or Benchmarks

• Use a reliable method to identify and establish thresholds for performance:
  – Industry benchmarks, e.g., Healthy People 2020 or County Health Rankings
  – Regulatory targets or requirements
  – “Sister” organizations’ data
  – Your own past performance
Now It’s Your Turn

• The next slide shows an example of a performance measure.
• Complete the rest of the data description form for the stated performance measure.
### Example of Data Description

Please unmute your phone for a discussion

<table>
<thead>
<tr>
<th>Statement of Measure</th>
<th>Rate of food borne illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Population</td>
<td></td>
</tr>
<tr>
<td>Numerator:</td>
<td></td>
</tr>
<tr>
<td>Denominator:</td>
<td></td>
</tr>
<tr>
<td>Source of data:</td>
<td></td>
</tr>
<tr>
<td>Target or Benchmark:</td>
<td></td>
</tr>
</tbody>
</table>
### Developing Your Own Performance Measures

**Let’s write one together.**

**Topic suggestion?**

<table>
<thead>
<tr>
<th>Performance measure:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target population:</td>
</tr>
<tr>
<td>Numerator:</td>
</tr>
<tr>
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<td>Which are you using—a target or benchmark?</td>
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<td>Source of data:</td>
</tr>
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<td>SMART objective:</td>
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<tr>
<td>Who will collect the information?</td>
</tr>
<tr>
<td>How often will the data be analyzed and reported?</td>
</tr>
<tr>
<td>Baseline measurement data and date(s):</td>
</tr>
<tr>
<td>Definitions and other comments:</td>
</tr>
</tbody>
</table>
Critique the following objective:

Increase to 76.8% the proportion of parents who use positive parenting and communicate with their doctors or other health care professionals about positive parenting.
Please mute your phone again.
Example from Spokane
Ongoing Challenges

- Standards Review cycles

2005
- “Continue the transition to the Logic Model, with evaluation of programs using the outcomes data to establish performance measures, collect and analyze the data (example of food safety training).”

2008
- “Keep working on development of measurement at the program level.”

2011
- “Establish and monitor quantifiable, time-framed program performance measures and outcomes in all program areas and activities.”
Inhibiting Factors
## Spokane Regional Health District
### Public Health Outcome Measures

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>2009 Baseline</th>
<th>2010 Status</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community and Family Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Reduce the percentage of women who smoke during pregnancy that are enrolled</td>
<td>28%</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>in the Nurse Family Partnership program by 30%.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Increase percentage of referrals to Community and Family Services who are</td>
<td>30%</td>
<td>64%</td>
<td>70%</td>
</tr>
<tr>
<td>contacted within 72 hours after receipt of the referral based on program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>availability from 30% to 70%.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Increase the number of children enrolled in the Infant Toddler Early</td>
<td>59%</td>
<td>64%</td>
<td>80%</td>
</tr>
<tr>
<td>Intervention program who receives services in the home setting from 59% to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Opioid Treatment Program</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Reduce opioid related crimes of Opioid Treatment Program (OTP) patients to</td>
<td>25%</td>
<td>0%</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>less than 5% during the first three months of treatment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Reduce by 50% the use of the emergency room by OTP patients to an average</td>
<td>1.4 visits/</td>
<td>.1 visits/</td>
<td>.7 visits/</td>
</tr>
</tbody>
</table>
Program Example

Division Dashboard

<table>
<thead>
<tr>
<th>STD Program Performance Measure:</th>
<th>2009 Baseline</th>
<th>Current Status</th>
<th>Target</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase percentage of contacts of STD exposures where treatment was obtained</td>
<td>70%</td>
<td>72%</td>
<td>80%</td>
<td>-8%</td>
</tr>
</tbody>
</table>

Quality Improvement Project

Performance Measures:

1. Decrease average # days to report STD cases to PH
2. Increase % clinics reporting STDs within county average

STD Program Provider Project

- Average Days: 2010 - 14.1, 2011 - 9.6, Goal - 8.0
- Reporting within Timeframe: 2010 - 42%, 2011 - 69%, Goal - 55%
Example from Tacoma-Pierce County

• Monitoring/reporting performance measures since 2006.

• Three levels of measures
  – Department
  – Division
  – Program
<table>
<thead>
<tr>
<th>Goal</th>
<th>Objective</th>
<th>Performance Measure</th>
<th>Person Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve immunization rates</td>
<td>Increase percent of kindergarten enrollees who are up to date on</td>
<td>Percent of kindergarten enrollees who are up to date on their immunizations upon school entry</td>
<td>Nigel Turner</td>
</tr>
<tr>
<td></td>
<td>their immunizations upon school entry from 86% to 92% by 2015.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce tobacco use</td>
<td>Reduce the percent of adults who smoke from 18% to 16% by 2015.</td>
<td>The percent of adults who smoke</td>
<td>Steve Marek</td>
</tr>
<tr>
<td>Improve environmental quality</td>
<td>Increase the percent of water systems that meet drinking water standards from 80% to 90% by 2015.</td>
<td>The percent of water systems that meet drinking water standards</td>
<td>Steve Marek</td>
</tr>
<tr>
<td>Decrease communicable disease rates</td>
<td>Increase the percent of ten key communicable diseases that have a flat or decreasing trend in incidence from 40% to 50% by 2015.</td>
<td>The percent of ten key communicable diseases that have a flat or decreasing trend in incidence</td>
<td>Nigel Turner</td>
</tr>
</tbody>
</table>
Division Performance Measures

• Approximately 5-10 performance measures per division

1. Percent of solid waste complaints resolved within 30 days
2. Percent of retail tobacco outlets selling tobacco to minors
Reporting & Monitoring

• Reporting structure
  – Quarterly (Division/Program) and annually (Dept) to QI Council
  – Dashboard annually to Board of Health

• Performance measurement roles/responsibility matrix

• Measures linked to financial dashboards

• Performance management policy
### TPCHD Dashboard

<table>
<thead>
<tr>
<th>Goal/Objective</th>
<th>Performance Measure</th>
<th>Target</th>
<th>2008</th>
<th>% goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communicable Disease Control</strong></td>
<td>Increase number of valid doses of vaccine administered to children under the vaccine for children program by 4%.</td>
<td>Number of doses administered by private and public Vaccine For Children providers.</td>
<td>384,494</td>
<td>404,640</td>
</tr>
<tr>
<td><strong>Communicable Disease Control</strong></td>
<td>Increase the percentage of Chlamydia cases interviewed by 20%.</td>
<td>1. Percent of Chlamydia cases that are interviewed.</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Number of Chlamydia cases that are interviewed.</td>
<td>849</td>
<td>1706</td>
</tr>
</tbody>
</table>
Lessons Learned

• It’s critical to make data/reporting meaningful to staff.
• More is not better.
• Resource level declines after the first data reporting period.
• Staff need lots of practice/training to develop good performance measures.
What’s Happening at Your Organization?

POLL

• Has your organization developed AND collected/reported data for performance measures?

A. Yes, extensively throughout the organization
B. Yes, in some programs
C. No, not at all
D. Don’t know

It's QUESTION TIME!!
Two Main Uses for Performance Measures

1. Comparing your data to a benchmark or target (comparison of performance levels)

2. Improving the quality of the processes and outcomes of the organization
Using Performance Measures

Identify and agree what matters
- Strategy mapping
- Outcome, output, and performance measure definitions
- Internal and external stakeholder assessment

Collect the right information
- Performance measure design template
- Key performance questions
- Performance measure decision framework

Learn and improve performance
- Building blocks of performance / quality / learning culture
- Performance improvement meetings

Funded by the US Centers for Disease Control and Prevention
Performance Management System

Situation: Data rich, information poor
Confusion re: expectations, structure, measures
Lots of apprehension
Culture = eager to improve, but tool-averse

Actions: Set clear expectations
Clarified reporting relationships
Defined performance measures
Reported data in aggregate & individual
Shared data with staff
Lots we could measure. What drives what?

Activity/Process Measures

- # inspections (esp High Risk)
- # of education interactions
- # Re-inspections
- Time in Field

Outcome Measures

- % of facilities w/ safe practices
- < Foodborne Illness
- < Cost / facility
- Customer Satisfaction

Drivers not yet determined

11/9/11
Food Focus (for daily management, for now)

Process Measures:

# inspections per (time) by risk category
(4 - level 3 most important)

#/% re-inspections per (time)

Time in field

Important to staff & management that we understand how these interacted and not manage in isolation of each other!
(“balanced scorecard” analogy)

If we had just measured one thing we would have lost the team!
Results & Next Steps

Results: Improved productivity & performance
Now use data/info to inform program
Have stable, measured environment in which to experiment

Next Steps:
Look at factors that drive time in field (scheduling & logistics)
Consider whether stable enough to set new objectives (targets & timelines)
• Identify QI projects: solid waste complaints
• Use as springboard for more extensive program evaluation: school mini-grants
• Communicate to key stakeholders to show impact
Performance Measurement Process

1. Select
   - Choosing & defining what’s worth measuring

2. Collect
   - Gathering data

3. Store
   - Managing data

4. Analyze
   - Turning data into useable information

5. Present
   - Effectively communicating the information

6. Interpret
   - Translating the information into implication

7. Apply
   - Deciding how implication will become action
POLL

• Has your organization developed, monitored/reported, AND used performance measures?

A. Yes, extensively throughout the organization
B. Yes, in some programs
C. No, not at all
D. Don’t know

It’s QUESTION TIME!!
Please unmute your phone

How has your organization developed, monitored/reported, AND used performance measures?
Resources

- Carder B. Measuring Performance: Damned if you do and damned if you don’t. ASQ Human Development & Leadership Division. ASQ press. August 2011. (not yet available on line at [www.asq.org](http://www.asq.org))
- Turning Point Performance Management Collaborative (multiple documents). [http://www.turningpointprogram.org/Pages/perfmgt.html](http://www.turningpointprogram.org/Pages/perfmgt.html)
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