Quality Improvement and Quality Planning for CHAs and CHIPs

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National Association of County & City Health Officials

Today's Agenda

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- Review the Quality Trilogy and application to development of community assessments and community health improvement plans
- Concepts and tools for prioritizing issues for improvement (or any other topics!)
- Review QI and QP tools to optimize assessment and health improvement planning processes

QUALITY TRILOGY

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Quality Planning (QP)

Quality Control (QC)

Quality improvement (QI)

Projects to Conduct Planning

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•Some projects to plan services to address new or emerging issues aren't a good fit for "traditional" quality improvement methods and tools, such as Rapid Cycle Improvement (RCI)

•Excellent for the Collaborative or Breakthrough Method from Institute of Healthcare Improvement (IHI)

•Do benefit from AIM statements and from using the Plan-Do-Study-Act cycle

When is Quality Planning project appropriate?

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- Service/process has never existed before
- Customer requirements are not known
- Existing service/process performance is not capable of meeting customer requirements
- Service/process is ad hoc; extremely variable; never been well defined or worked on before as a whole
- Unstable environment – major market, technology, organizational change
- No performance data exists or would take excessive time/expense to collect data

Quality Planning (QP)

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•J. Juran* described three basic managerial processes to manage quality:

- Quality Planning (QP)
- Quality Control (QC) and
- Quality Improvement (QI)

Juran Trilogy

•Purpose for QP is to provide the organization with the means to provide services that can meet client and stakeholder needs.

•Quality control is needed to stabilize a process and to hold the gains made through QI efforts.

*Juran on Planning for Quality, pg. 11

QP compared with QI

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•How does quality planning differ from project-by-project quality improvement?

- Juran uses example of an alligator infested swamp and the difference between removing alligators individually (QI) or draining the swamp to remove all the alligators at once (QP).*
- Another description is the difference between improving an existing work activity, action or intervention and the method used to design a new program or activity.

**Juran on Planning For Quality*

Quality Planning Roadmap*

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•In broad terms, QP consists of developing services and processes required to meet stakeholders' needs

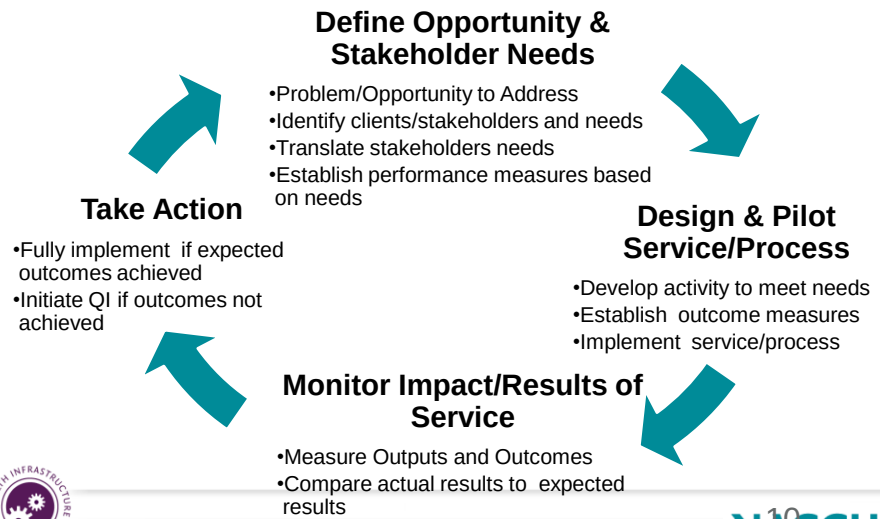
- Identify stakeholders and their needs
- Develop an activity or program to address the needs (establish stakeholder related measures)
- Optimize the program or service activities to meet health department needs
- Develop a work process to conduct the services and interventions
- Optimize the work process, prove that it delivers the results needed
- Implement the program or service in the health department

**Juran on Planning For Quality*

Application in PH

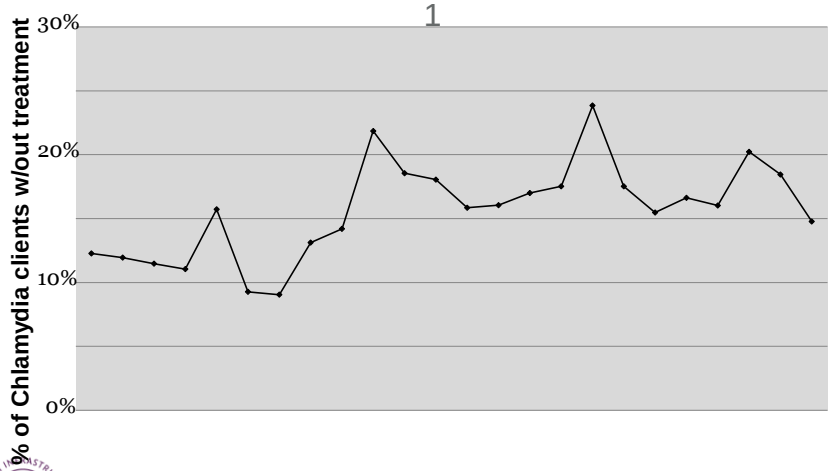
- PH already has expertise in parts of the quality planning process
  - MAPP, Sector Mapping, Partner Tool, Program Development, many others
- Strengthen QP step of optimizing program to meet HD and stakeholder needs
  - Force Field Analysis, Meeting Effectiveness, Interrelationship Digraph, Failure Mode Analysis, many others
- Strengthen step of optimizing the work processes to achieve desired results
  - Common QI tools-work flows, fishbone diagrams, PDSA cycles
- Implement only after program and work processes have been optimized to deliver results

Quality Planning Cycle



Quality Control - Program Performance

1
1



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QI – Rapid Cycle Improvement

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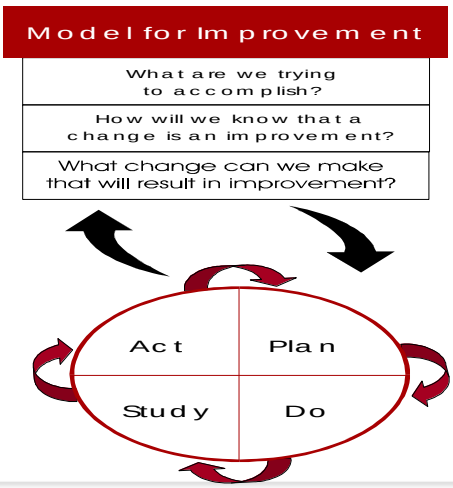

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The Quality Trilogy (adapted from Juran)

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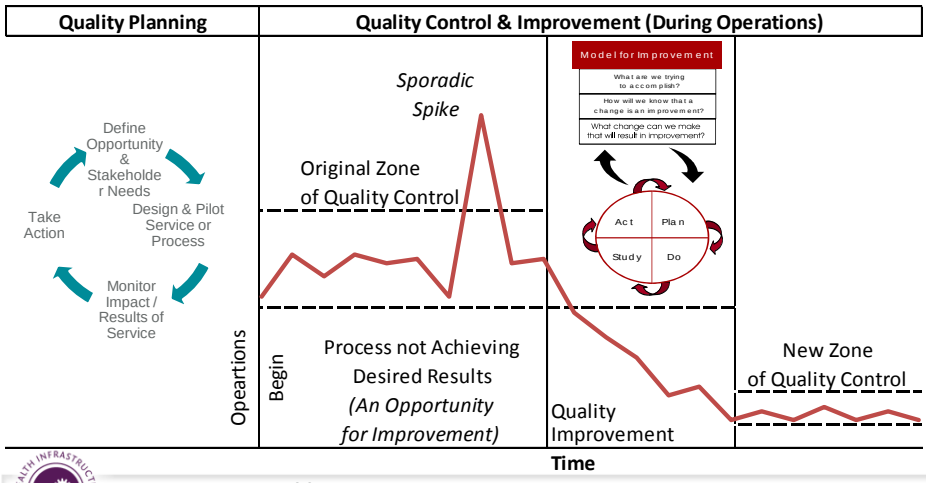

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Same Basic Method … Different Applications

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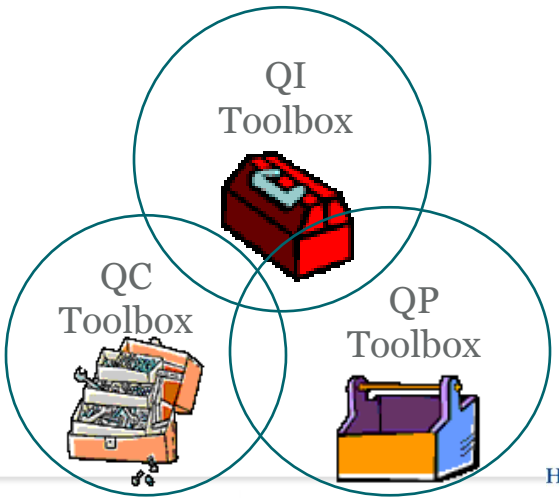

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Application of QP: Consultation for City Planners

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Original concept: Hire a temporary, part-time health educator to provide consultation services to city planners to include built environment concepts into next round of plans.

QP tools used: customer interviews

Results: Customers didn't need the services; program not implemented.

"Holding the Improvement Gains"

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Harder to sustain performance

- Documented paper process
- Controlled electronic process
- Training
- Performance Aids
- Audits
- Reminders
- Check lists
- Measurement feedback
- Hard controls

Easier to sustain performance

Impacts on Health Take Time

Chart progress along the way using different types of measures

Public health programs can have a positive influence – but take time to show results.

Many different factors influence health, requiring multiple strategies

Behavior change is often slow

Resources are small compared to the magnitude of the problem

Let's Discuss!

Let's discuss how Quality Planning methods and tools can help in development of community assessments or health planning efforts.

Targeting QI Improvements

Remember criteria of high risk, high volume and problem-prone

Use Pareto to identify “vital few”- will get the greatest gain from QI efforts

Evaluate relevance to population and chose highest relevance that is not achieving goal or target

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

The Cheshire Cat, in Lewis Carroll's *Alice In Wonderland*

One way to determine the road to better health in our communities is to use criteria to identify the issues we will work on together.

Criteria for Prioritizing Health Issues

Rank topics/issues that are:

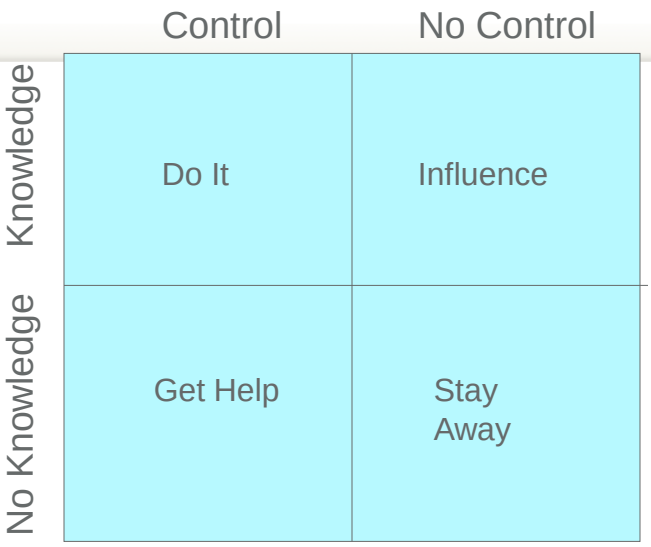
- Important/ relevant to population
- Extent of control or influence
- High-risk
  - Seriousness of health issue
- High-volume
  - Size of the health issue
- Feasibility of improvement
  - Effectiveness of interventions

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



Control and Influence

It helps to understand where:

- we have control
- we may need assistance
- we can influence only
- we should stay away from

It also points out that we can expand our control area by becoming more knowledgeable, seeking assistance, and trying to be influential in areas beyond our control

Rate the Seriousness of the Health Problem
(Hanlon Method for Prioritizing Health Problems APEXPH)

Give each health problem a numerical rating on a scale of 0 through 10 .
The table below is an example of how the numerical rating might be established.

How Serious a Health Problem is Considered	"Seriousness" Rating
Very Serious (e.g., very high death rate; premature mortality; great impact on others; etc.)	9 or 10
Serious	6, 7, or 8
Moderately Serious	3, 4, or 5
Not Serious	0, 1, or 2

Rate the Size of the Health Problems

Give each health problem a numerical rating on a scale of 0 through 10 (reflects % of the local population affected by the particular health problem)

Percent of Population with the Health Problem	"Size of the Problem" Rating
25% or more	9 or 10
10% through 24.9%	7 or 8
1% through 9.9%	5 or 6
.1% through .9%	3 or 4
.01% through .09%	1 or 2
Less than .01% (1/10,000)	0

Rate Effectiveness of Available Intervention

It may be helpful to define upper and lower limits of effectiveness and assess each intervention relative to these limits. For example, vaccines are a highly effective intervention for many diseases; those diseases would receive a high "Effectiveness of Intervention Rating."

Effectiveness of Available Interventions in Preventing the Health Problem	"Effectiveness" Rating
Very Effective; 80% to 100% effective (e.g., vaccine)	9 or 10
Relatively Effective 60% to 80% effective	7 or 8
Effective 40% to 60%	5 or 6
Moderately Effective 20% to 40% effective	3 or 4
Relatively Ineffective 5% to 20% effective	1 or 2
Almost Entirely Ineffective Less than 5% effective	0

Criteria Matrix

	Importance			Control			Serious	Size	Effective Actions	Total
Health Issue	H	M	L	H	M	L				
1. Immunization Rate	3				2		5	6	10	26
2. Teen Pregnancy		2				1	7	3	4	17
3. Childhood Obesity	3				2		9	8	3	25
4. Low HS Graduation		2		3			4	6	3	18
5. Alcohol/Drug Use			1			1	8	3	2	15

Prioritization Matrix-Weighing Your Options

Use it to narrow down options through a systematic approach of comparing choices by applying criteria

What does it do?

- Quickly surfaces basic disagreements to resolve up front
- Forces teams to focus on the best things to do
- Limits "hidden agendas" by surfacing criteria as part of process
- Increases chance of follow-through as get more buy-in
- Reduces the chance of selecting someone's "pet project"

PH Memory Jogger, pgs. 105- 115

How to Use Prioritization Matrix

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= significantly more important
10= exceedingly more important
1/5 significantly less important
1/10=exceedingly less important

Assign agreed-upon value to the issue contributing more and the reciprocal score to the other

Total the scores and prioritize the issues, highest to lowest

Example of Prioritization Matrix (Each issue against Importance criterion)

	1. Immu.	2. Engage Commu.	3. CHIP	4. Food	5. Family Planning	Row Total
1. Immu.		10	1	1	5	17
2. Engage Community	1/10		1	1/5	1/5	1.5
3. CHIP	1	1		1/5	1	3.2
4. Food	1	5	5		5	16
5. Family Planning	1/5	5	1	1/5		6.4

Popcorn Exercise—Taste criteria

	Air Popped	Oil or butter	Microwave	Row Total
Air Popped				
Oil or butter				
Microwave				

TOOLS AND STRATEGIES FOR EFFECTIVE COMMUNITY ENGAGEMENT

Tools for Quality Planning

- Sector Mapping to identify Key Stakeholders and their needs
- Affinity Diagram to organize ideas or issues into categories
- Force Field Analysis to identify driving forces and restraining forces
- Meeting Effectiveness Tool to improve the participation and contribution of community partners
- Adapt or Adopt Promising or Evidence-based Practices

Sector Mapping Tool

Use sector maps to identify a wide range of key stakeholders and partners in different sectors of a system

Categories of sectors can include:

- Public Sector
- Private Sector
- Community Sector
- Academic/Research Sector

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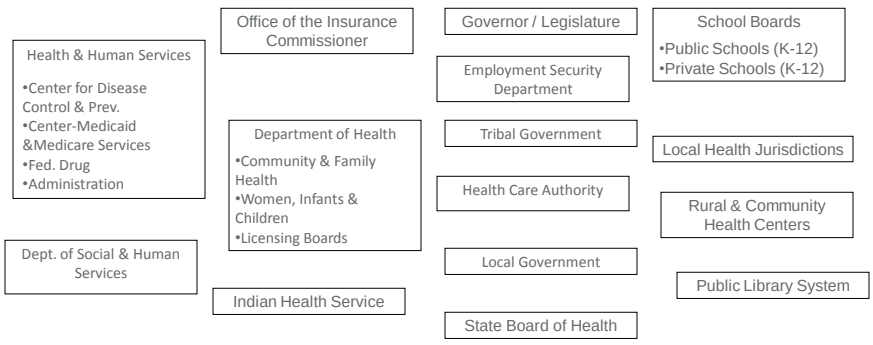
Sector Maps for Planning –Public Sector



Bullets refer to examples of organizations and are not a comprehensive listing.

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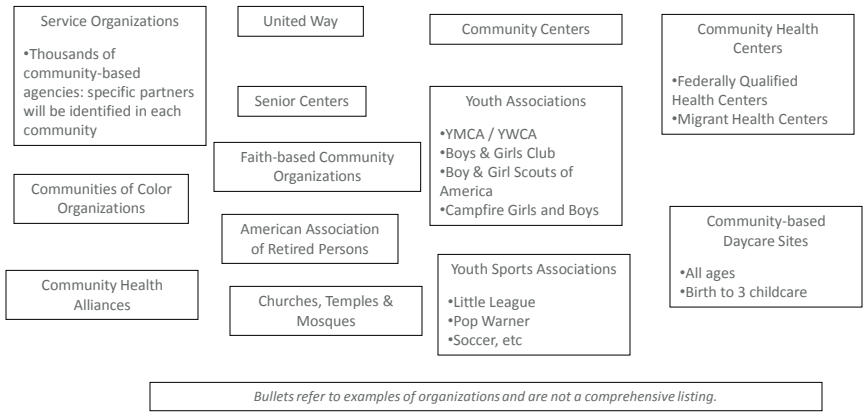
Example of Community-Based Sector



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Affinity Diagram*

Why use it?

To allow a QI team to creatively generate a large number of ideas/issues and organize in natural groupings to understand the problem and potential solutions.

What does it do??

- Encourages creativity by everyone on team
- Breaks down communication barriers
- Encourages non-traditional connections among ideas/issues
- Allows breakthroughs to emerge naturally
- Encourages ownership of results
- Overcomes “team paralysis”

**PH Memory Jogger page 12*

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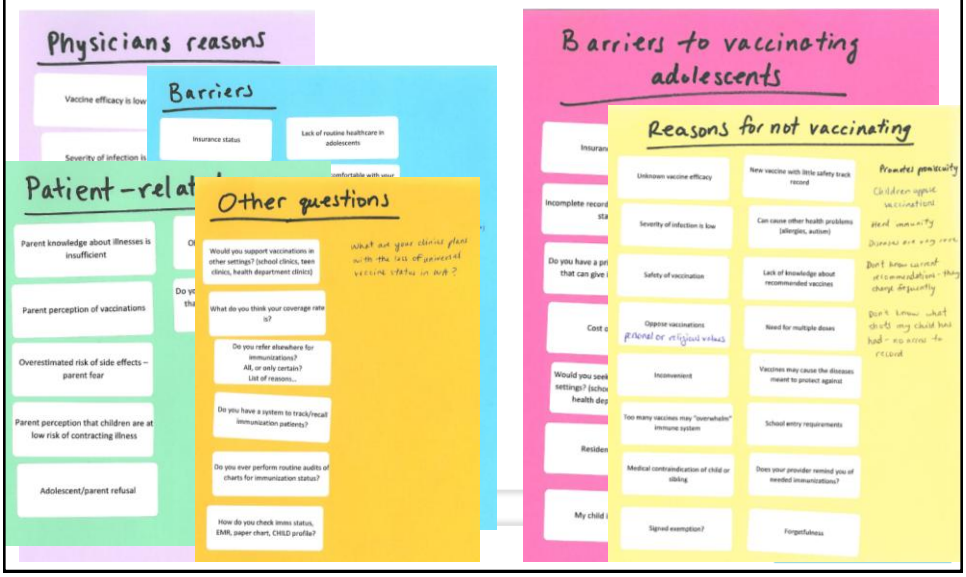
How to Build an Affinity Diagram

- Phrase the issue under discussion in a full sentence and write at the top of full size flip chart paper
- Distribute 3 x 5 post-it notes to each participant
- Follow the rules for brainstorming
- Have each participant write their ideas on the Post-Its, one idea per sheet in large letters, 4-7 words each
- Have participants place their Post-Its on Flip Chart
- Facilitator assists group to sort Post-Its into 5 – 10 related categories
- For each category create a title or heading
- Review categories and ideas to rearrange, if necessary

Uptake of Vaccines Example (Kittitas, WA)



Force Field Analysis*

Why use it?

- To identify the forces and factors in place that support or work against the solution of an issue or problem so that the positives can be reinforced and/or the negatives eliminated or reduced.
- What does it do?
- Presents the positives and negatives of a situation so that they can be compared
- Forces people to think about all aspects of making a desired change a permanent one
- Encourages honest reflection and agreement about the relative priority of factors on each side of the "balance sheet"

**PH Memory Jogger pg. 63*

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Kane County Community Partnership QI Project

Force-Field Analysis

Ideal State:
We participate in meaningful community partnerships that are productive and objective-based with appropriate from agencies creating mutually beneficial outcomes.

+ Driving Forces	Restraining Forces -
Efficiency →	← Lack of Ownership
Synergy →	← Follow Through
Outcomes →	← Time Barriers
Create Momentum →	← "Who gets credit" issues
Productive →	← Competition
↑ Collaboration to build momentum →	← Duplication
	← Inertia
Clout →	← Funding
Connections →	
Visibility →	
Positive relationships with partners →	

Multi-State Learning Collaborative: Lead States in Public Health Quality Improvement

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Prioritizing Forces of Change

• Measurable outcomes↑	5
• Follow through↓	5
• Productive↑	4
• Positive relationships w/ partners↑	4
• Duplication↓	2
• Lack of ownership↓	2
• Visibility↑	1
• Efficiency↑	1
• Funding ↓	1

gnifies restraining force, up arrow signifies driving force

Multi-State Learning Collaborative: Lead States in Public Health Quality Improvement

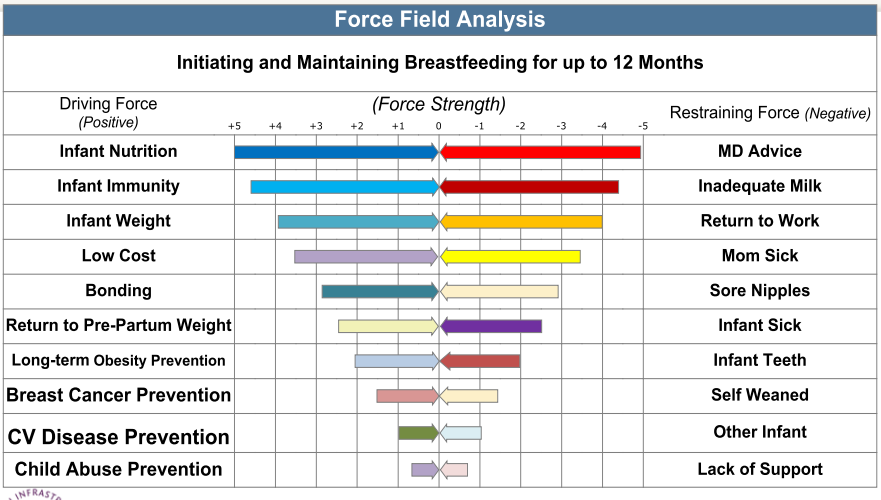
Kane County July 20, 2009

Force Field Analysis*

*Please Note: positive driving forces amplitudes have not been substantiated by quantitative data

Force Field Analysis

Initiating and Maintaining Breastfeeding for up to 12 Months



Example- AIM for Meeting Effectiveness

What are We Trying to Accomplish? *Increase the effectiveness of Community Health Improvement Plan (CHIP) coalition meetings and maximize stakeholder participation. We do this in order to increase member engagement and contribution to the implementation of the CHIP.*

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Evaluating Meeting Effectiveness

Evaluating Meeting Effectiveness

Instructions: After each meeting, use this form to evaluate your group's ongoing effectiveness. Have each participant complete the form, and then discuss the results to identify what went well, and what could be improved in future meetings. Please use a scale from 1-5 for each item, with 1 = not very and 5 = to a great extent. (Rating of 5 is best)

1. **Commitment to the group:** To what extent was I committed to helping to achieve the group's goals for this meeting?

Meeting #

1	2	3	4	5	6	7	8	9	10

2. **Clear Goals:** To what extent were the goals clear for this meeting?

Meeting #

1	2	3	4	5	6	7	8	9	10

3. **Communication:** To what extent was the discussion open, with sharing of diverse ideas and perspectives?

Meeting #

1	2	3	4	5	6	7	8	9	10

How Will We Know When We Get There? Measurements

- Increase in meeting attendance (% of members that regularly attend)
- Increase in effectiveness (% of members rating meetings as effective or valuable)
- Increase in engagement (% of members rating their commitment as high)
- Increase in participation (% of members that contribute resources to CHIP activities)

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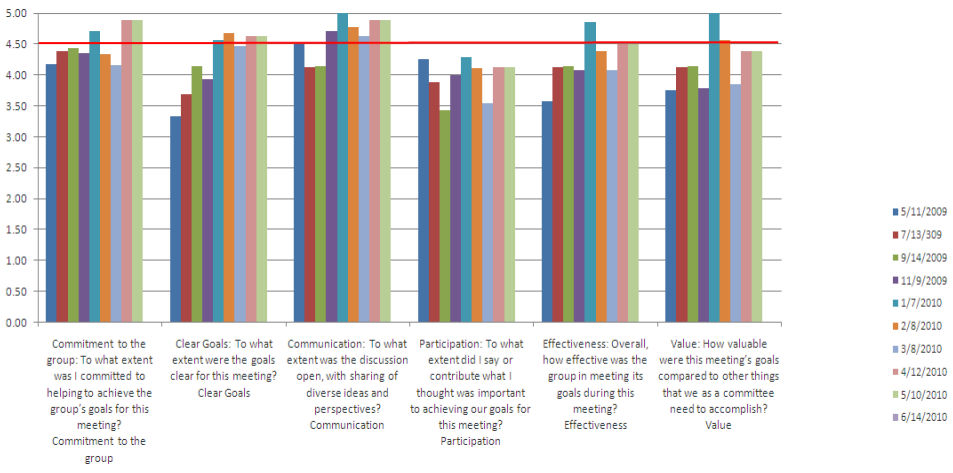
Meeting Effectiveness Measurements Adams County



Multi-State Learning Collaborative: Lead States in Public Health Quality Improvement

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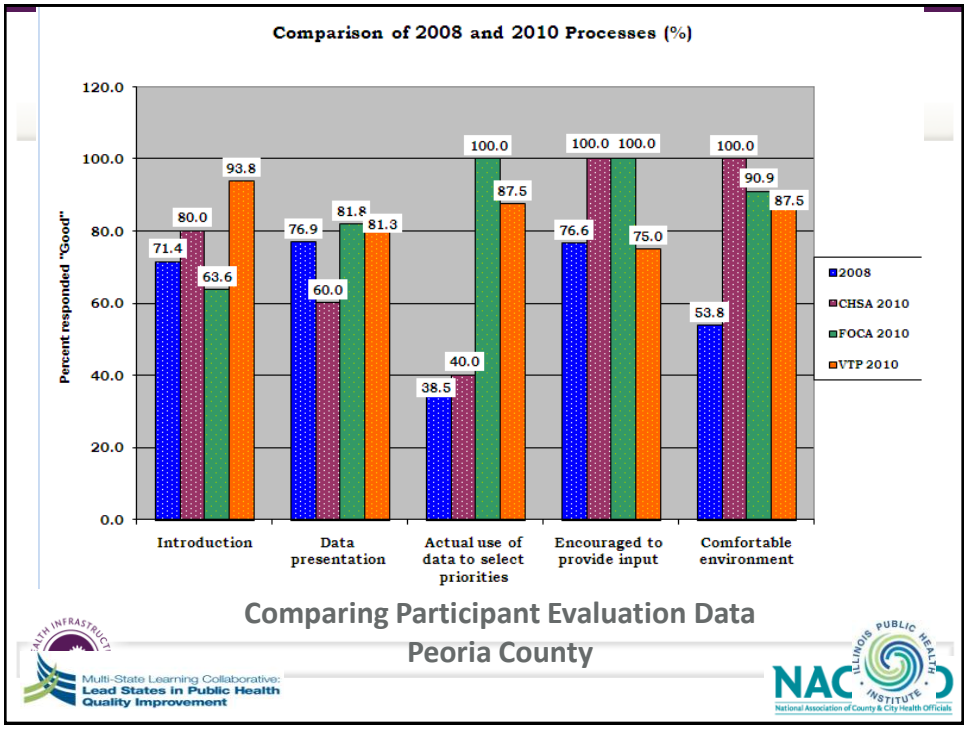
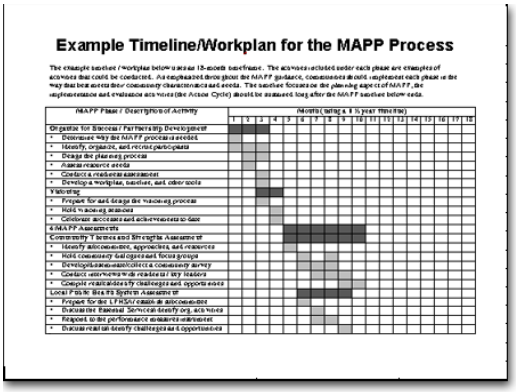


Gantt Charts for Implementation

- Simple tool that uses horizontal bars to show which tasks can be done simultaneously over the life of the project
- Used extensively in Project Management and Quality Improvement teams

Organize Your CHA or CHIP Process



What will the process entail?

How long will it take?

What results are we seeking?

How will we know we are finished?

Who will do the work?

Model Practice Definitions

Terms are tossed about:

Promising approaches, best practice, model practice, evidence-based programs, scientific standards, state-of-the-art

The Center for Best Practices defines a model program as:

A "packaged" or very specific promising, evidence-based, or science-based practice that indicates or results in positive public health outcomes and must be carefully implemented to maximize probability of repeated effectiveness.

Model (or Best) Practice Definitions

Promising Practice

- Based on past practice showing positive effects

Evidence-based Practice

- Has been evaluated and shows some positive results

Science-based Practice

- Has undergone rigorous research
- Replicable and shows positive results in various settings

Exemplary Practice

- Best of the best examples put forward for Standards

The Community Guide

- Sponsored by CDC
- 15 member taskforce
- Systematic review
- Analyze all available evidence
- Describe research gaps
- Assess the economic benefit
- Programs and policies for different settings

5

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One Proven Intervention Strategy (for each Impact Objective)

What Works to Promote Health? www.thecommunityguide.org

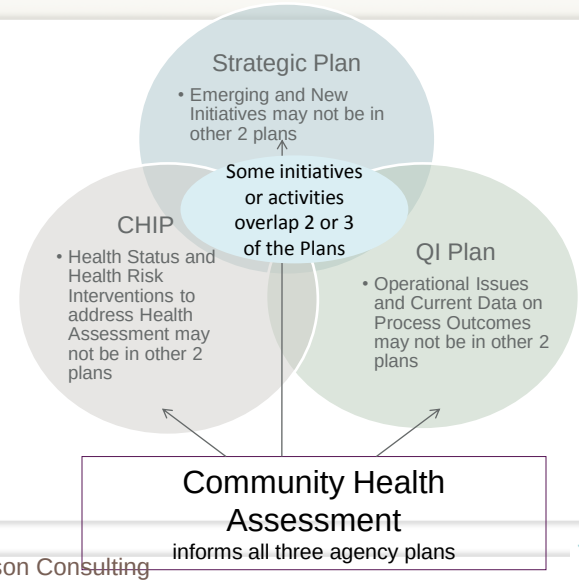
Lists interventions for many health issues and conditions in 3 categories:

- Insufficient evidence
- Recommended (sufficient evidence)
- Recommended (strong evidence)

EXAMPLE: Increasing Tobacco Cessation Use

- Mass Media Contests (Insufficient evidence)
- Mass Media Campaign with other Interventions: Recommended (Strong evidence)
- Provider reminders used alone: Recommended (Sufficient evidence)

CHA/CHIP/SP/QI Plan



In Summary…

- Using Quality Planning methods and tools can improve public health planning processes
- Build on proven practices from other health departments
- Be intentional about which methods and tools to use for improvement based on the topic and needs
- Remember to plan for holding the gains and sustaining improvement (quality control)

Sources for Model Practices

Agency for Healthcare Research and Quality's National Guideline Clearinghouse http://www.guidelines.gov

National Association of County and City Health Officials, Model Practice Database
http://www.naccho.org/topics/modelpractices/database/index.cfm

National Governors Association Center for Best Practices
http://www.nga.org/center

Preset PubMed searches on public health topics or direct access to www.PubMed.org

Taskforce on Community Preventive Services, Systematic Reviews and Evidence Based Recommendations for Public Health
http://www.thecommunityguide.org

Some QP and QI References

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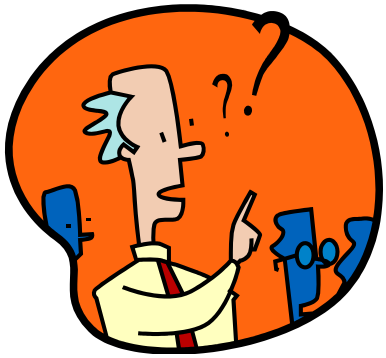
What comments or questions do you have?

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