

QI Tools for Prioritization

Sonja Armbruster

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Learning Objectives

By the end of this video participants should be able to:

- Describe several tools to prioritization for quality improvement including:
 - Voting
 - Impact and Effort Plot
 - Control and Influence Matrix
 - Prioritization Matrix

QI Video Series

1. QI Principles for Public Health: Back to Basics
2. Key Tools for the Plan Phase
3. QI Tools for Idea Generation
4. QI Tools for Prioritization

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Reasons Prioritization is Necessary

Designing an Improvement Theory

- Many causes have been identified
- Many solutions may have been generated
- Making the most impactful choice
- Capacity limits (we can't do all ideas generated)



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Voting

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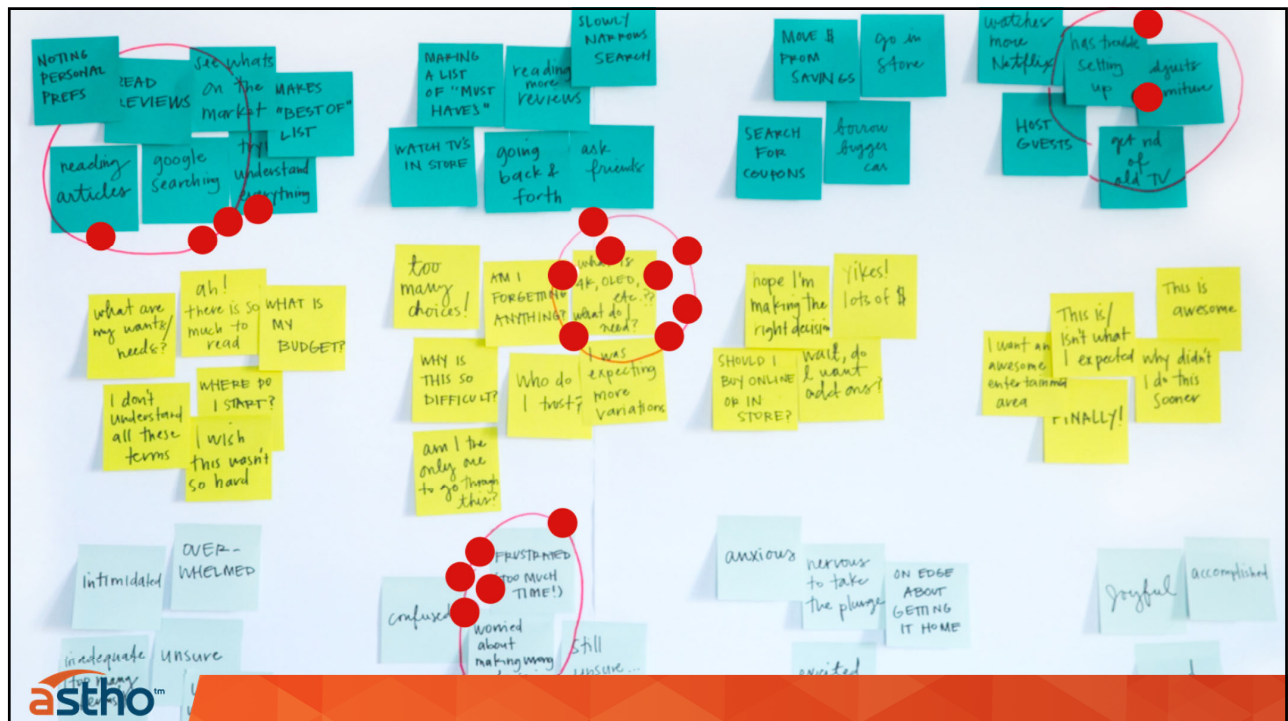
Voting to Prioritize

When to Use

- Focus on a few alternatives
- Draw in the expertise and opinions of all team members
- Managing tension, angst, and friction
- Quick decisions in a short time



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How to use dot voting



Gather
Materials



Set
Criteria



Vote



Calculate and
Discuss

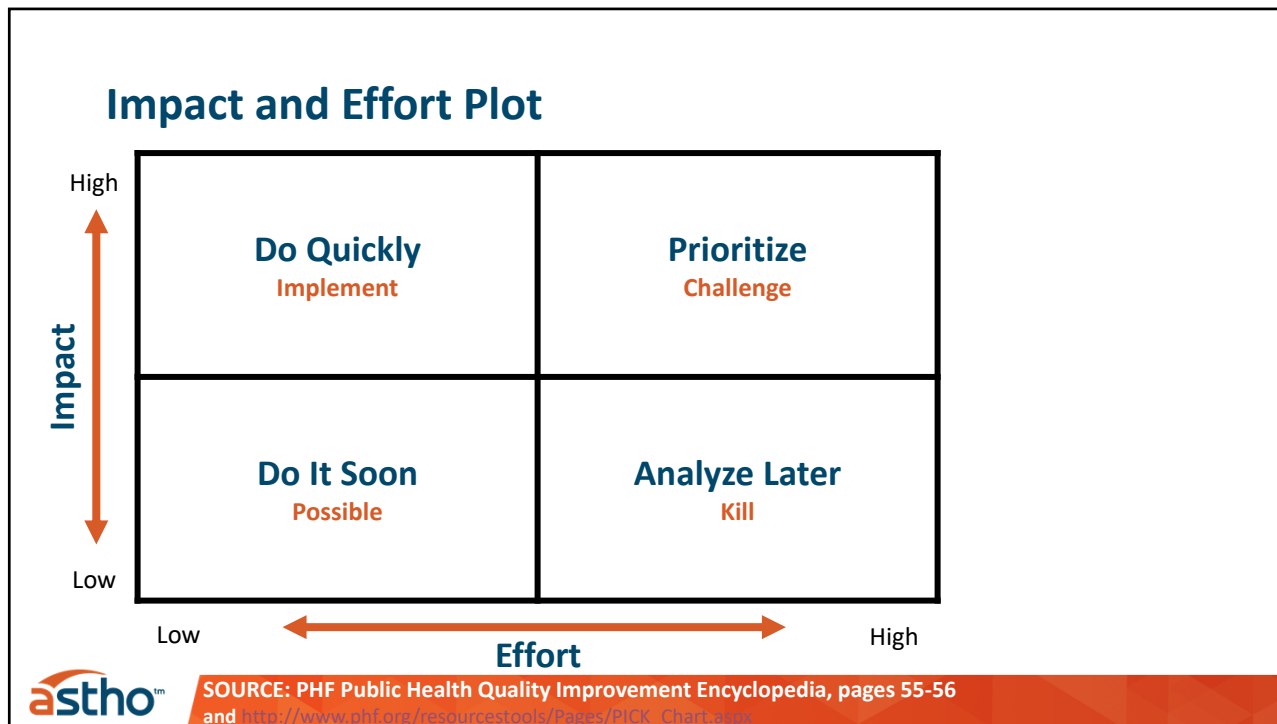


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Impact and Effort

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Voice from the Field U.S. Virgin Islands

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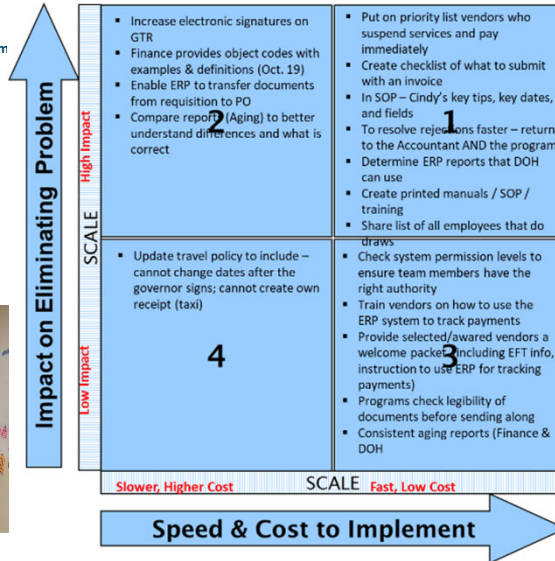
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QI Prioritization

During a series of Kaizen workshops to understand current processes, bottlenecks, and develop job aids to prevent errors and delays, the team also prioritized solutions using a 2x2 Prioritization Matrix.



Prioritize Solutions: 2x2 Matrix



Not yet prioritized:

- Revise the priority process & rules
- In SOP – All adjustments must be complete before the grant closes



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Control and Influence Matrix

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Control and Influence Matrix

	CONTROL	NO CONTROL
INFLUENCE	AREAS WE CAN ADDRESS	AREAS WE CAN INFLUENCE BUT NOT CONTROL
NO INFLUENCE	AREAS WE CAN CONTROL BUT NOT INFLUENCE	AREAS WE SHOULD NOT ADDRESS



SOURCE: PHF Public Health Quality Improvement Encyclopedia, pages 17-18

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Control and Influence Matrix

Ensuring Proper Levels of Chlorine in Drinking Water

	CONTROL	NO CONTROL
INFLUENCE	AREAS WE CAN ADDRESS Sample testing schedule and protocols	AREAS WE CAN INFLUENCE BUT NOT CONTROL Chemical dumping policy and enforcement
NO INFLUENCE	AREAS WE CAN CONTROL BUT NOT INFLUENCE Control the type of chlorine put in the water by the prescribed levels are set by an outside agency	AREAS WE SHOULD NOT ADDRESS Consumers using bottled water or non-chlorinated water



SOURCE: PHF Public Health Quality Improvement Encyclopedia, pages 17-18

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Prioritization Matrix

Use it to compare choices and build consensus

- Direct comparison of options
- Consider multiple criteria
- Create pairwise comparisons



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How to Build Prioritization Matrix

1. Gather a list of options or choices
2. Consider decision criteria
3. Apply a numerical scale – coming to quick consensus or voting
4. Calculate the results

	1	2	3	4	5	6	7	8	Score
1. Analytic/Assessment	10	1/5	1/5	1/5	1/10	5	1/10	1/10	5.9
2. Policy Development	5	10	1	1	1	10	1	1	20
3. Communication	5	1	10	1	1/5	5	1/5	1	13.4
4. Cultural Competency	5	1	1	10	1	10	1	1	20
5. Community Dimensions	10	1	5	1	1	5	1	1/5	23.2
6. Basic Sciences Skills	1/5	1/10	1/5	1/10	1/5	1	1/10	1/10	1
7. Financial P&M	10	1	5	1	1	10	1	1	29
8. Leadership and Systems	10	1	1	1	5	10	1	1	29

Prioritization Matrix for the Core Competencies for Public Health Professionals, [White Paper](#)



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1. Gather a list of options

- Brainstorming
- QI Tools – Cause and Effect, Solution and Effect Diagrams
- Industry standards



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2. Consider decision criteria

Criteria to identify priority problem	Criteria to identify intervention for problem
• Cost and/or return on investment	• Ease of implementation/maintenance
• Impact of problem (severity)	• Effectiveness of solutions
• Size of the problem (# of people impacted)	• Feasibility of solutions (staff, time, budget)
• Urgency of solving the problem	• Impact on system or health
	• Potential for negative consequences



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3. Apply a numerical scale

If option a compares as follows	Then option be must be this
10 = exceedingly more (criteria)	1/10 (.1) = Exceedingly less (criteria)
5 = Significantly more (criteria)	1/5 (.5) – Exceedingly less (criteria)
1 = Equally (criteria)	1 = Equally (criteria)

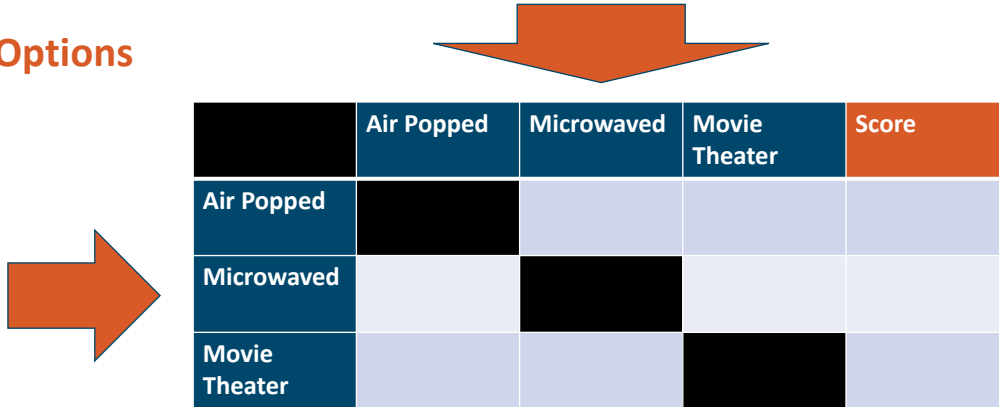
Air Popped Popcorn	Movie Theater Popcorn
10 = exceedingly more healthy	1/10 (.1) = Exceedingly less healthy



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Constructing a Prioritization Matrix

Options



	Air Popped	Microwaved	Movie Theater	Score
Air Popped				
Microwaved				
Movie Theater				



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3. Apply a numerical scale

	Air Popped	Microwaved	Movie Theater	Score
Air Popped				
Microwaved				
Movie Theater				



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3. Apply a numerical scale

Criteria = Healthiest Option

	Air Popped	Microwaved	Movie Theater	Score
Air Popped		5	10	
Microwaved	1/5		5	
Movie Theater	1/10	1/5		



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4. Calculate the results

	Air Popped	Microwaved	Movie Theater	Score
Air Popped		5	10	15
Microwaved	.2		5	5.2
Movie Theater	.1	.2		.3



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Prioritization Tools

Conclusion

- Voting
- Impact and Effort Plot
- Control and Influence Matrix
- Prioritization Matrix



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Options to Keep Learning



Priority Matrix [Video](#)



Public Health Foundation

Public Health Quality Improvement Encyclopedia, Prioritization Matrix for the Core Competencies for Public Health Professionals, [White Paper](#)



NACCHO

Guide to Prioritization Techniques, [Prioritization Matrix](#)



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QI Tools for Prioritization
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