

► BUILDING CAPACITY



Darryl Booth, MBA

Building Capacity With Tools That Clarify Our Work

Editor's Note: A need exists within environmental health agencies to increase their capacity to perform in an environment of diminishing resources. With limited resources and increasing demands, we need to seek new approaches to the practice of environmental health. Acutely aware of these challenges, the *Journal* publishes the Building Capacity column to educate, reinforce, and build on successes within the profession using technology to improve efficiency and extend the impact of environmental health agencies.

Column contributors are guest authors. The conclusions of this column are those of the author(s) and do not necessarily represent the views or policies of NEHA.

Darryl Booth has been monitoring regulatory and data tracking needs of environmental public health agencies for over 20 years. He is the manager of U.S. operations for Hedgerow Software.

In my April 2024 column (www.neha.org/april-2024), I introduced the Eisenhower Matrix as a technique to prioritize overwhelming expectations. That is, long lists of work waiting for our attention. President Dwight Eisenhower's quote, "What is important is seldom urgent and what is urgent is seldom important," framed the exercise.

Other tools from the business world can be equally useful in a regulator's complicated work environment. Do you often see the need to put boundaries on a project's definition? Does your team sometimes focus too much on the small stuff? Lastly, do projects sometimes kick off and then fizzle due to lackluster follow-through? The three tools I will highlight that can be a part of today's toolbox are: SIPOC, Pareto analysis, and RACI.

SIPOC

Use SIPOC (suppliers, inputs, process, outputs, and customers) when a new or complicated process is unclear, misunderstood, or feels overly complicated. It is useful for establishing a high-level perspective (i.e., staying out of the weeds) and as a starting point to frame a project. It is usually just one page, a basic diagram that gives everybody a shared mental model. It is deceptively simple: Just declare who supplies inputs and who benefits from outputs. Table 1 illustrates what a retail food permit application might look like using SIPOC.

SIPOC is supposed to be simple. It does not try to define every process step or variation. It defines the process at a high level: who supplies the inputs, what the inputs are, what major steps occur, what the process

produces, and who depends on the result. It gives the team a picture of the problem space before they start solving or improving it.

In a resource-constrained department, that shared picture can prevent weeks of circular conversation.

In the world of AI tools, consider prompting any LLM (Large Language Model) to create a first draft. Here is a prompt for any LLM:

Act as a process improvement facilitator. Help me create a high-level SIPOC for [name or briefly describe the process here.] First, ask clarifying questions about the process boundaries, suppliers, inputs, major steps, outputs, customers, common delays, handoffs, and assumptions. Then produce a simple SIPOC table that someone new to the tool could understand.

SIPOC pairs well with RACI. SIPOC shows the work, while RACI shows the ownership. I will get to RACI later in this column.

Pareto Analysis

Use a Pareto analysis when the team intends to focus its effort on the highest-impact problems. Limited capacity restricts our ability to do everything, which raises the practical question: What should we do first?

Pareto analysis is often summarized by the 80/20 rule, which states that a relatively small number of causes account for a large share of the problems. The numbers are not

TABLE 1 Retail Food Permit Application Example Using SIPOC	
Element	Example
Suppliers	Applicant, business owner, business licensing
Inputs	Applications, plans, menu, fee, ownership information, location
Process	Receive application > verify completeness > route for review > conduct plan review > request corrections if needed > approve permit > schedule opening inspection
Outputs	Approved permit, correction letter, inspection appointment, denial letter
Customers	Applicant, inspector, plan reviewer, public health agency, public/community
Note. SIPOC = suppliers, inputs, process, outputs, and customers.	

TABLE 2 Continuation of the Retail Food Permit Application Example Using Pareto Analysis	
Cause	# of Occurrences
Missing or incomplete plans	42
Fee not paid or paid incorrectly	27
Application missing ownership information	19
Building not suitable for the purpose	14
Menu equipment details are lacking	11
Applicant not responding to communications	8
Internal assignment delay	5

TABLE 3 The Four Steps and Role Expectations of RACI	
Participants Who Are:	Have This Expectation
Responsible	Who does the work?
Accountable	Who owns the result or the final decision?
Consulted	Who provides input before action is taken?
Informed	Who needs to be kept aware?
Note. RACI = responsible, accountable, consulted, and informed.	

TABLE 4 Continuation of the Retail Food Permit Application Example Using a RACI Diagram						
Process Step	Participant					
	Applicant	Intake Staff	Plan Reviewer	Supervisor	Inspector	Finance
Submit application package	R	I	I	I		
Check application completeness	C	R	C	A		C
Confirm fee/payment	C	R		A		R/C
Conduct plan review	C	I	R	A	C	
Request corrections	C	I	R	A		
Approve permit	I	I	R	A	C	C
Schedule opening inspection	C	R	I	A	R/C	
Note. A = accountable; C = consulted; I = informed; R = responsible; RACI = responsible, accountable, consulted, and informed.						

always exactly 80 and 20. The point is to identify the “vital few” issues consuming the most capacity.

Using the permit application process example from the SIPOC section, measure where you see the delays or problems. Real data are better, but an estimate is still illustrative.

To continue our example, the team could review its application process and identify where problems occur (Table 2). In this ex-

ample, the top three issues account for 88 of 126 occurrences, or approximately 70% of the problems. That means the department could apply its available capacity by improving the application package, the plan submittal checklist, payment instructions, and ownership/contact fields rather than trying to optimize every step. The others can wait.

As I recall from one professor I had, “Act on the vital few.”

RACI

Use RACI (responsible, accountable, consulted, and informed) diagrams when cross-functional processes risk unclear ownership. The process is divided into steps, and each step is labeled according to the role of each participant (Table 3).

To continue our retail food permit application example, the RACI diagram might look as shown in Table 4. Where R appears

in a cell, that indicates which participant is responsible for that process step. For example, the applicant is responsible for submitting a complete package. The intake staff is responsible for checking completeness.

Where the I appears, these participants (e.g., customers, partners) are the ones who are made aware of the process step. Automation might allow milestones to trigger emails or texts to keep them informed: “Your application has been assigned,” “Your application is under review,” and so forth.

A danger of RACI is over-engineering. Do not build the diagram for the entire depart-

ment. Use it for a specific process or recurring problem. If successful, the team will reduce coordination costs.

Building Forward

In my experience, knowing that a tool exists validates the problems we see every day. We are not alone. The fact that scholars and practitioners have worked these problems out means we are on the right track. The tool is a gift, a validated framework for moving forward.

None of these tools will add staff, expand the budget, or make the workload and expectations disappear. Their value is more prac-

tical than that. SIPOC helps a team see the work. Pareto analysis helps the team focus on the problems consuming the most capacity. RACI helps clarify who owns the work, who makes decisions, and who needs to be kept informed. For a busy environmental health department, those are not small gains. They can turn vague frustration into a shared picture, a short list of priorities, and a clearer path forward. 🌸

Corresponding Author: Darryl Booth, U.S. Operations Manager, Hedgerow Software. Email: darrylbooth@hedgerowsoftware.com

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