Constructing a Fishbone Diagram

Amanda Norton, CQII Coach

National Quality Improvement Technical Assistance Call

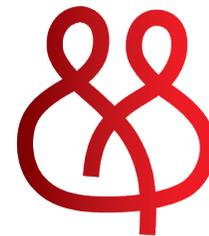July 29, 2025, at 4:00 pm EDT
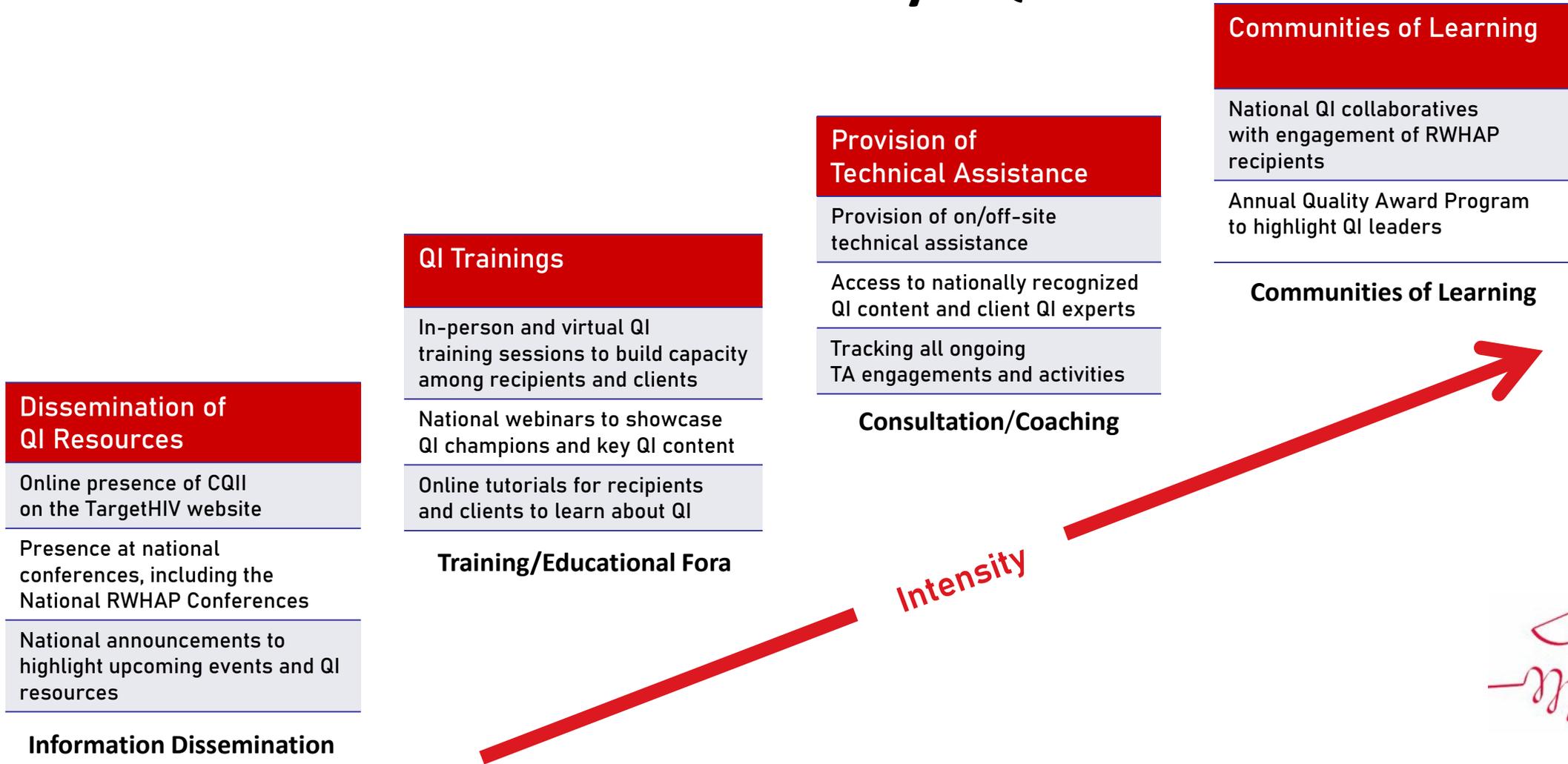
Center for Quality Improvement & Innovation (CQII)

- Funded by the HRSA HIV/AIDS Bureau [#U28HA53134]

- Managed by the New York State Department of Health AIDS Institute

- "Together, we continue to improve the lives of people with HIV across the United States. CQII provides state-of-the-art technical assistance and training to Ryan White HIV/AIDS Program (RWHAP)-funded recipients and subrecipients that measurably strengthen local clinical quality management programs and improve patient care, health outcomes, and patient satisfaction."

Levels of Technical Assistance by CQII

Communities of Learning

National QI collaboratives with engagement of RWHAP recipients

Annual Quality Award Program to highlight QI leaders

Communities of Learning

Provision of Technical Assistance

Provision of on/off-site technical assistance

Access to nationally recognized QI content and client QI experts

Tracking all ongoing TA engagements and activities

Consultation/Coaching

QI Trainings

In-person and virtual QI training sessions to build capacity among recipients and clients

National webinars to showcase QI champions and key QI content

Online tutorials for recipients and clients to learn about QI

Training/Educational Fora

Dissemination of QI Resources

Online presence of CQII on the TargetHIV website

Presence at national conferences, including the National RWHAP Conferences

National announcements to highlight upcoming events and QI resources

Information Dissemination

Intensity

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FISHBONE DIAGRAM/ISHIKAWA DIAGRAM
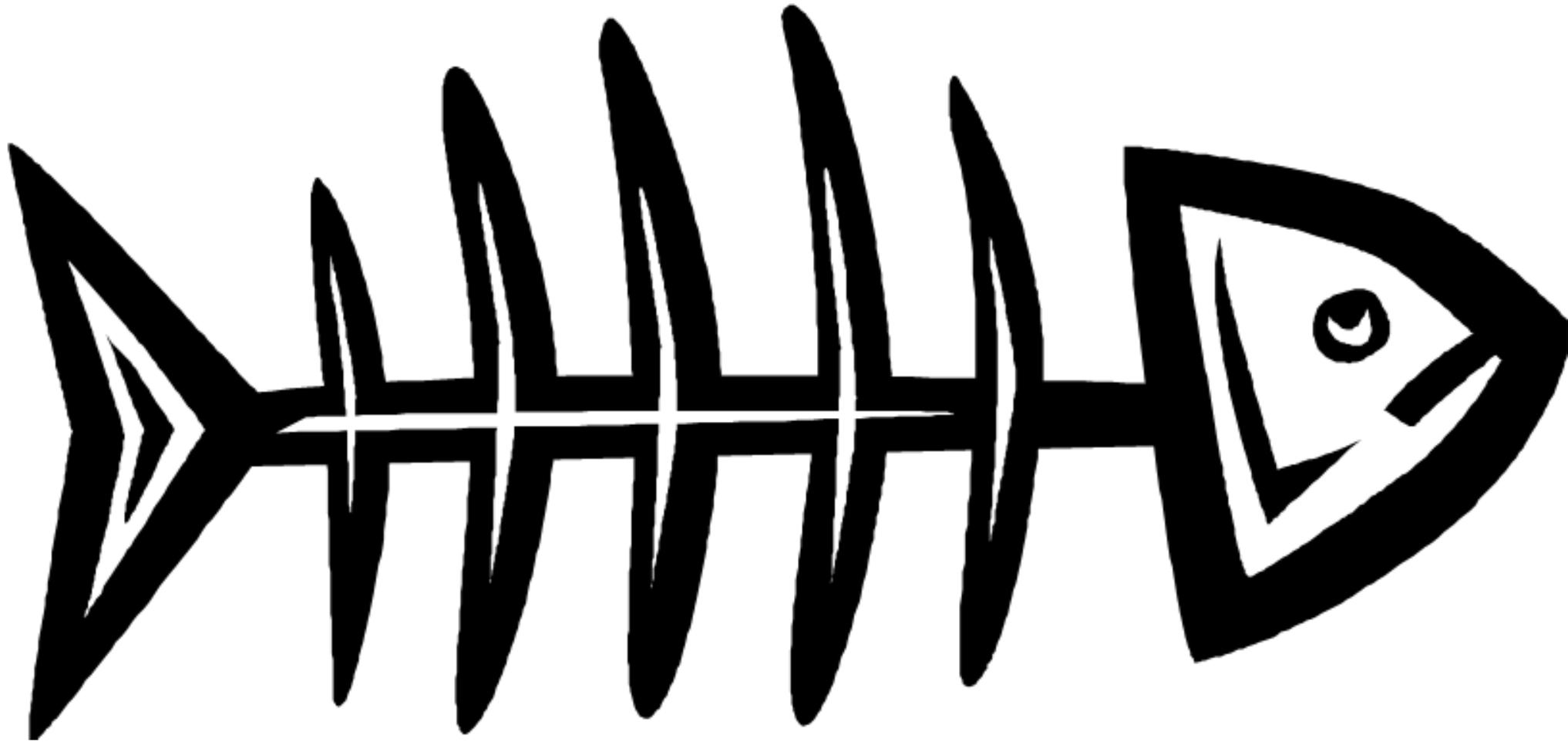
LEARNING OBJECTIVES

- Discuss the benefits of constructing a fishbone diagram to assess causes of a problem.

- Identify the steps in constructing a fishbone diagram.

- Discuss how to successfully use a fishbone diagram to identify and address causes.

- Build your own fishbone diagram.
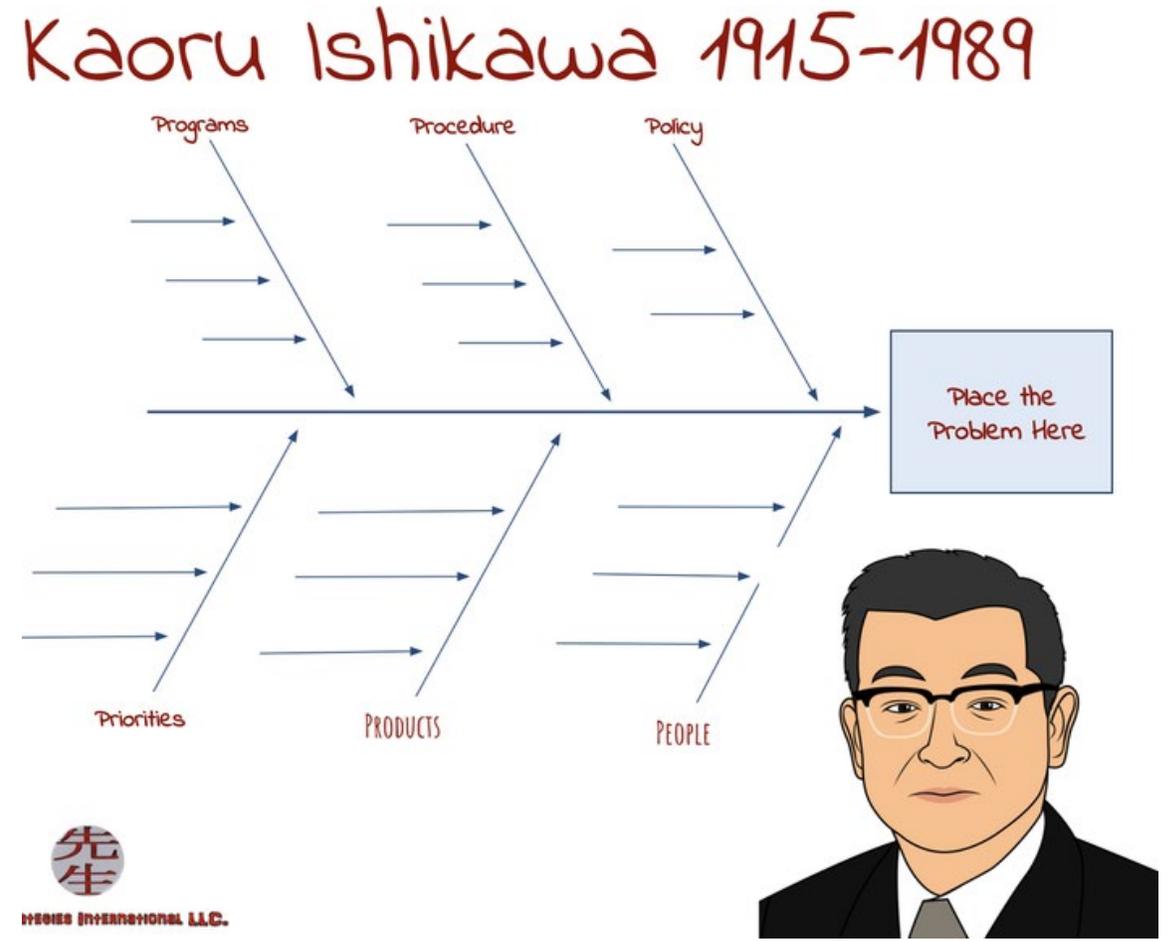
WILL THE REAL ".." PLEASE STAND UP....

- Ishikawa diagram

- Fishbone diagram

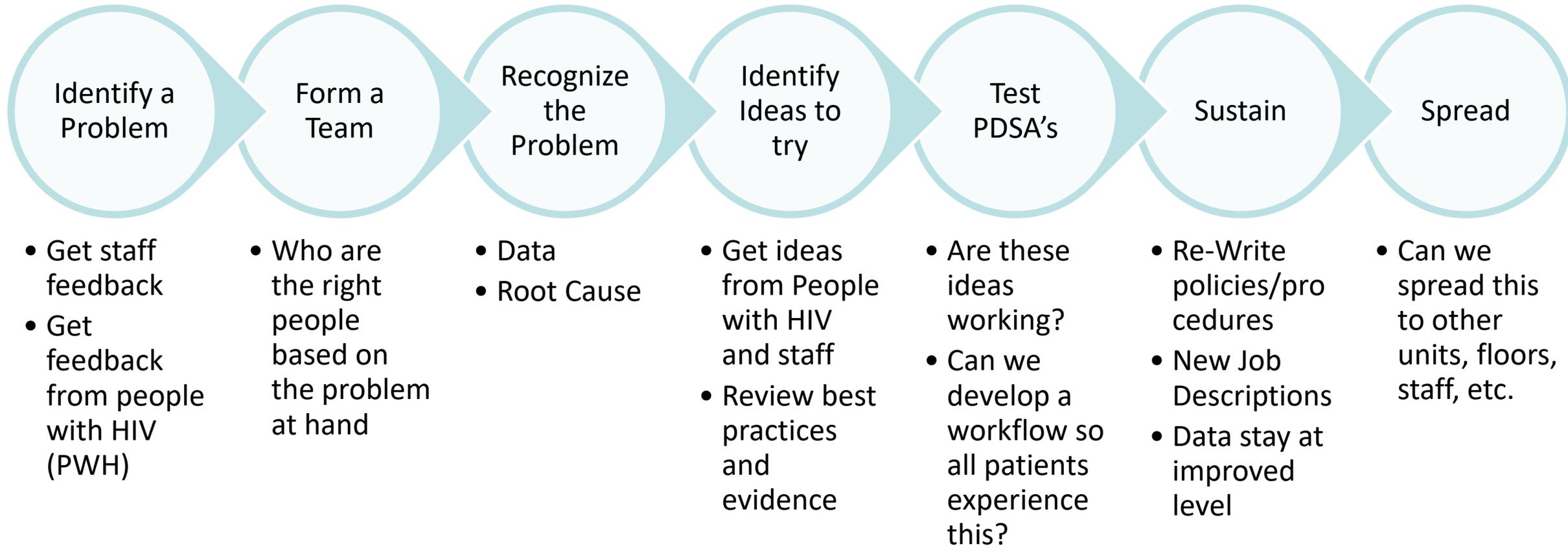- Cause and effect

ISHIKAWA DIAGRAM

The Ishikawa Diagram was created by Kaoru Ishikawa, an organizational theorist professor at the University of Tokyo.

Ishikawa believed that **increased internal cooperation and coordination positively affects a customer's needs and ultimately leads to process efficiency and better quality of products and services**.
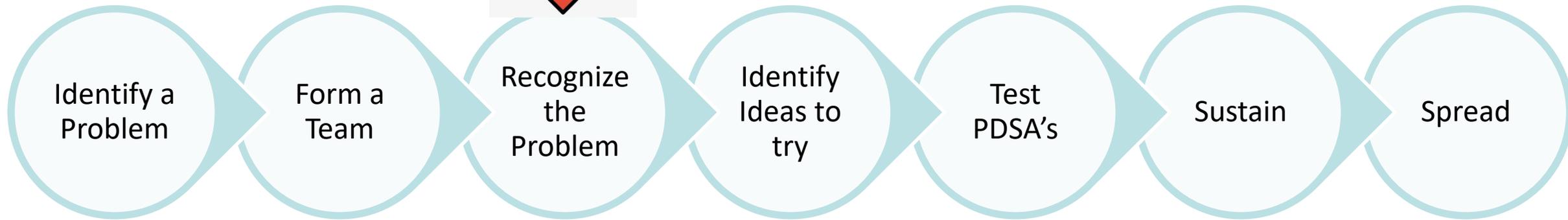
He expressed the need for the top-level management to support the teams which were under their control all the time.

Kaoru Ishikawa 1915–1989

Programs Procedure Policy

Place the Problem Here

Priorities PRODUCTS PEOPLE

先生

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THE QUALITY IMPROVEMENT JOURNEY

Identify a Problem
- Get staff feedback
- Get feedback from people with HIV (PWH)

Form a Team
- Who are the right people based on the problem at hand

Recognize the Problem
- Data
- Root Cause

Identify Ideas to try
- Get ideas from People with HIV and staff
- Review best practices and evidence

Test PDSA's
- Are these ideas working?
- Can we develop a workflow so all patients experience this?

Sustain
- Re-Write policies/procedures
- New Job Descriptions
- Data stay at improved level

Spread
- Can we spread this to other units, floors, staff, etc.

THE QUALITY IMPROVEMENT JOURNEY

YOU ARE HERE

Identify a Problem	Form a Team	Recognize the Problem	Identify Ideas to try	Test PDSA's	Sustain	Spread

- Get staff feedback
- Get people with HIV (PWH) feedback

- Who are the right people based on the problem at hand

- Data
- Root Cause

- Get ideas from people with HIV and staff
- Review best practices and evidence

- Are these ideas working?
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- Re-Write policies/procedures
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- Can we spread this to other units, floors, staff, etc.

BENEFITS AND IMPORTANCE OF ISHIKAWA DIAGRAM

- Displays **all the possible causes** of a particular problem in a simple, easy to read graphical way.

- **Captures the relationships** between the potential causes and shows them in the chart.

- A great tool **for solving complex problems** where many factors must be taken into consideration.

- **Stimulates an in-depth analysis** and evaluation because it allows you to explore possible causes in detail.

BENEFITS AND IMPORTANCE OF FISHBONE DIAGRAM

- Gives you a bigger picture and better understanding of the problem.

- **Boosts and frames** brainstorming about the possible reasons.

- Stimulates in-depth discussion among team members about the problem.

- Helps in maintaining team focus.

- Identifies where a process isn't working.

THE 5 WHYS

- Formulating five reasons is not mandatory - sometimes there are only three reasons.

- Aims improvement at root cause.

- Avoids addressing symptoms.

- Performed systematically.

- Continuous improvement tool.

- Systems focused.

- The "5 Whys" not the "5 Whos".

THE 5 WHYS: EXAMPLE

Example: My computer shuts down hourly.

    Why: It's seven years old.

    Why: We never bought new ones.

    Why: It has not been in the budget.

    Why: There is no central person to control information technology (IT) activities.

    Why: They retired and were never replaced.

GROUP EXERCISE ON 5 WHYS

Why am I always late to work?

1.

2.

3.

4.

5.

CONSTRUCTING A FISHBONE DIAGRAM

Establish what the problem (effect) is:

- State in clear, concise terms, agreed by everyone.

Write the effect on the head of the fish:

- Main causes and related causes are identified by the team under categories.

Brainstorm:

- Use standard categories.
- Use major steps in the process if the effect is resulted from a recognizable process.
- Continue to ask "why?" until you've reached a useful level of detail.
- When ideas run low, ask for "just one more", check for logic, completeness, and balance.

COMMON CATEGORIES USED

People: Anyone involved with the process.

Methods: How the process is performed and the specific requirements for doing it, such as **systems, policies, procedures**, rules and regulations.

Equipment/Resources: Computers, tools, bus pass, car, childcare… things required to accomplish the job/task.

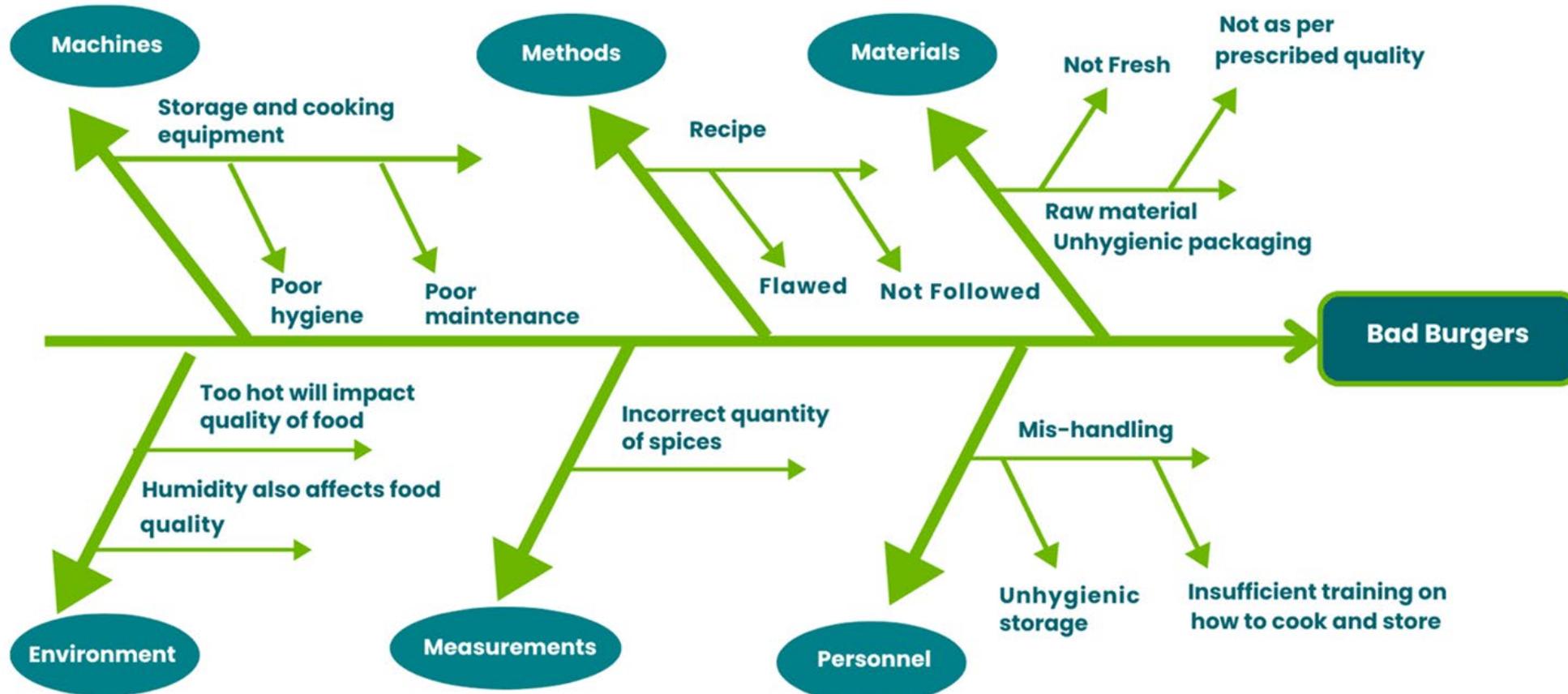**Environment:** The conditions, such as location, time, temperature, and culture in which the process operates.

Fishbone diagram with categories: People, Methods, Equipment, Resources, Environment, leading to Problem Statement.
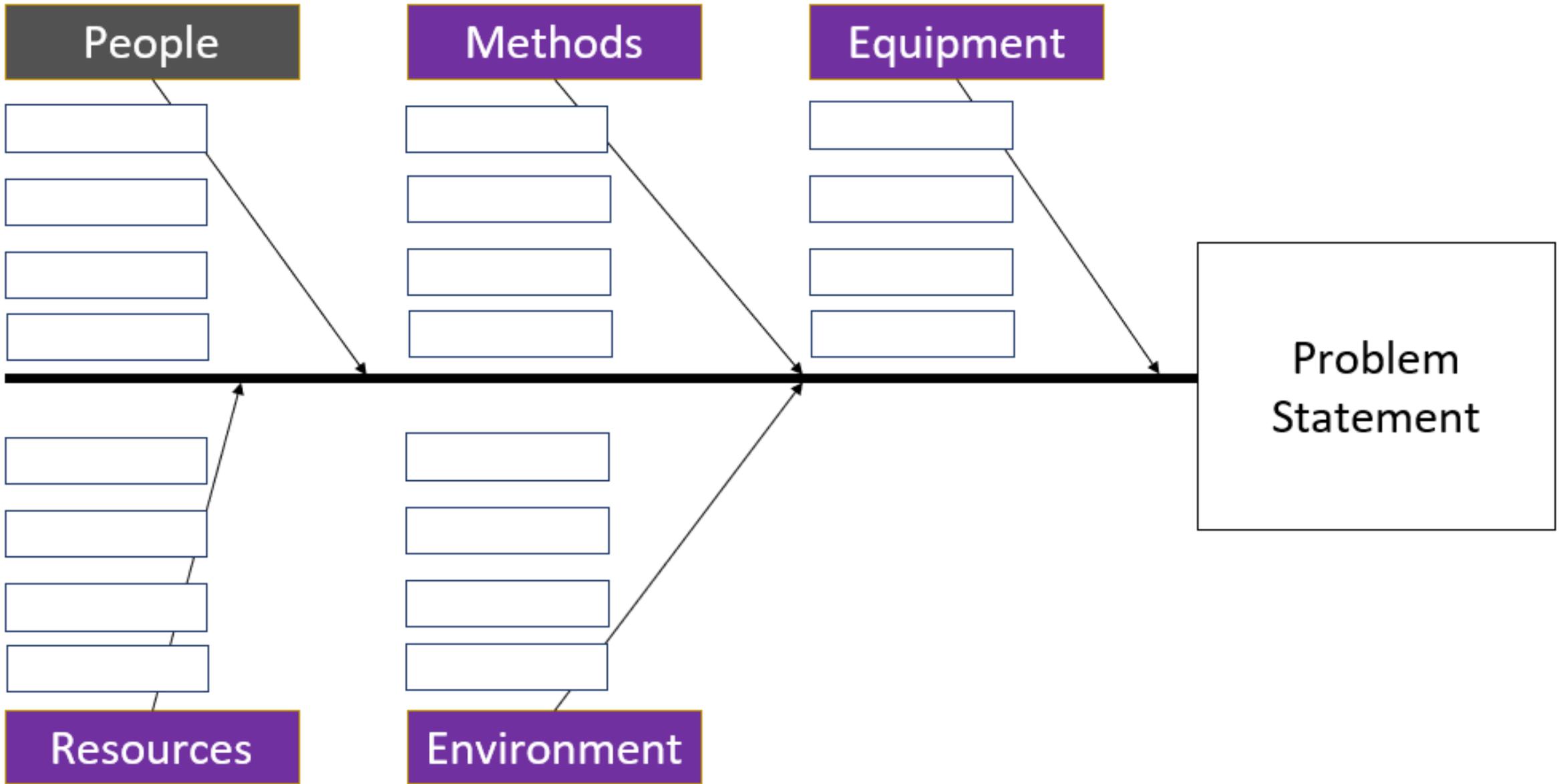
FISHBONE (aka ISHIWAKA or CAUSE & EFFECT) DIAGRAM

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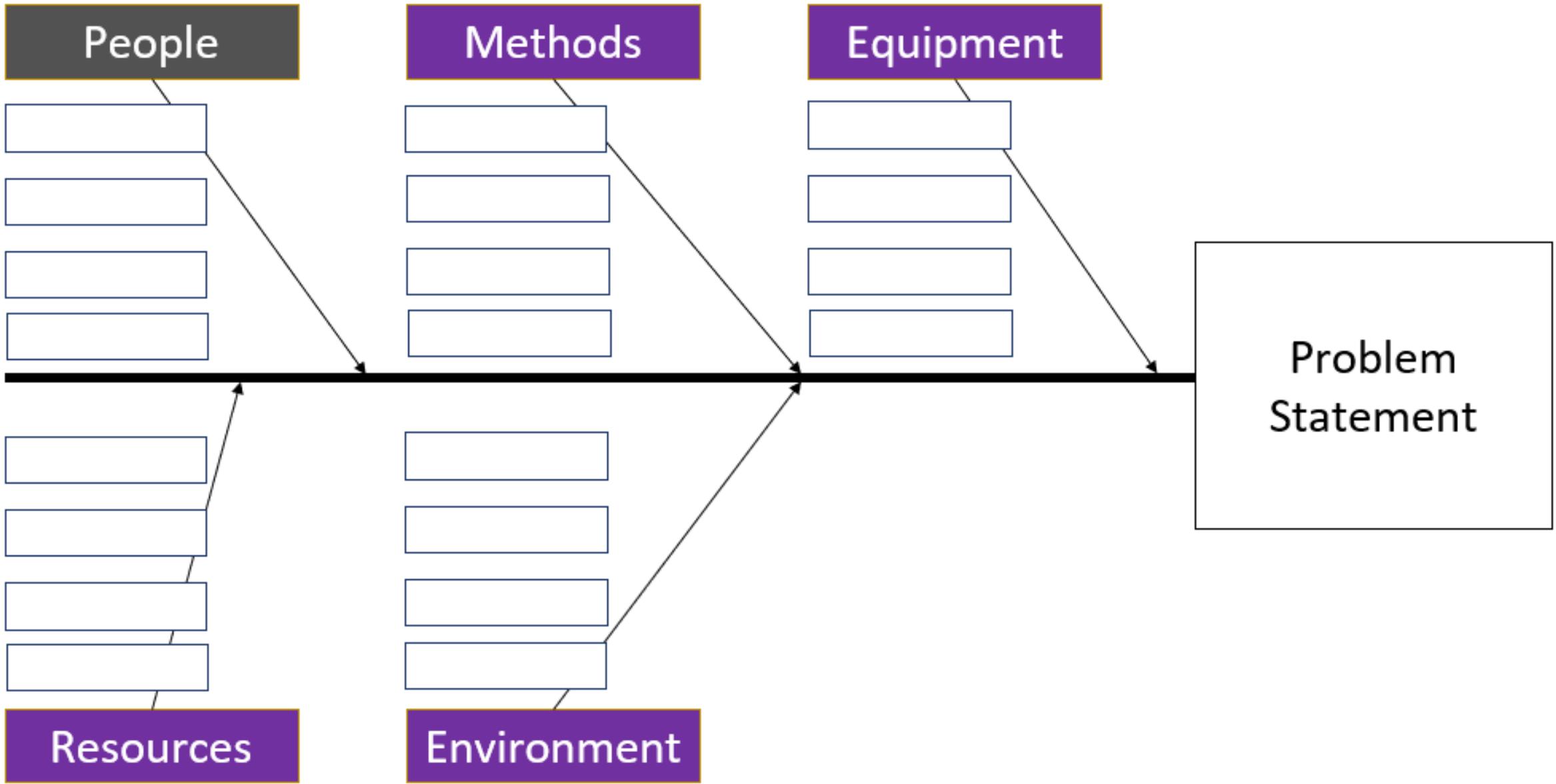
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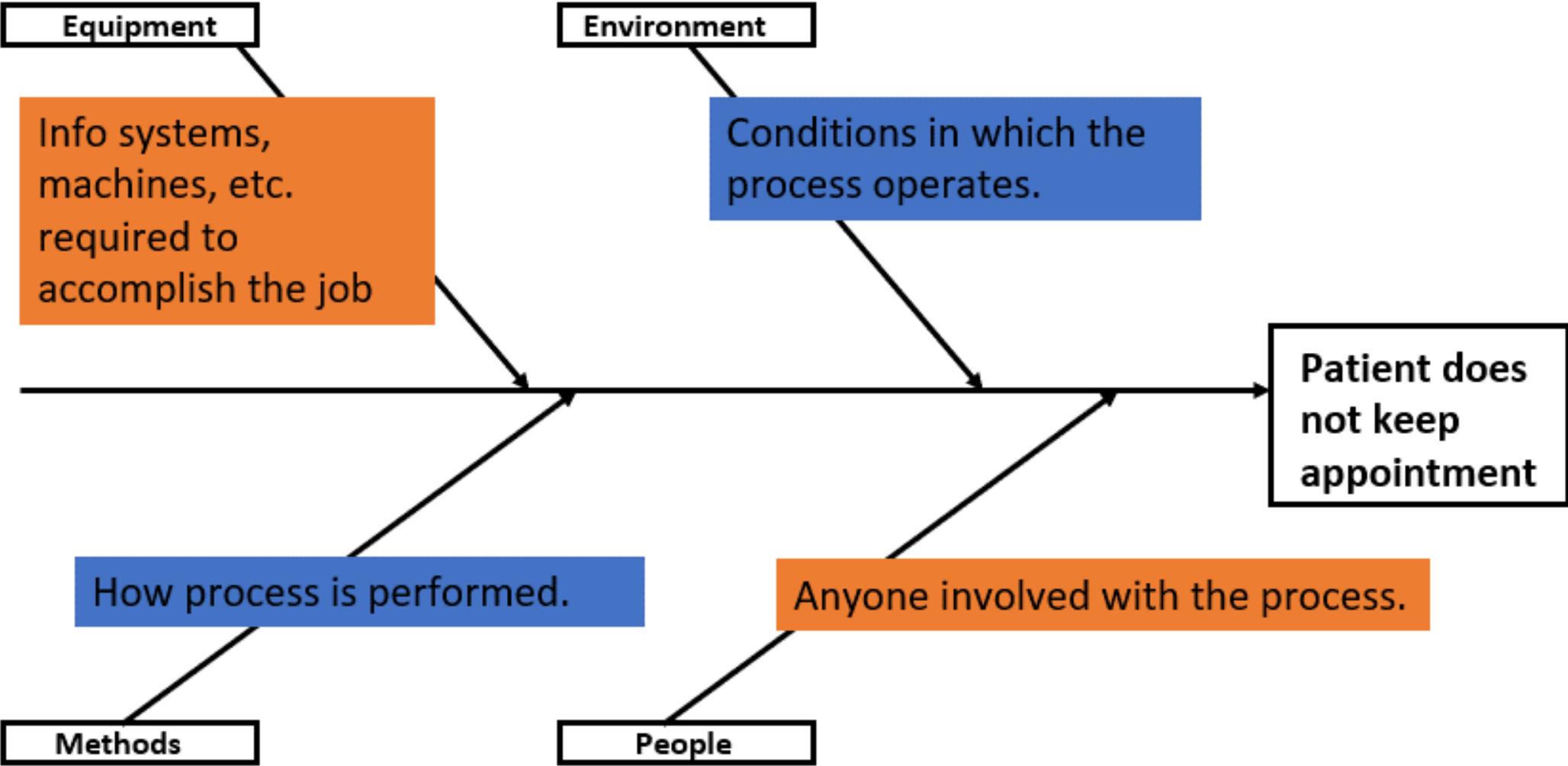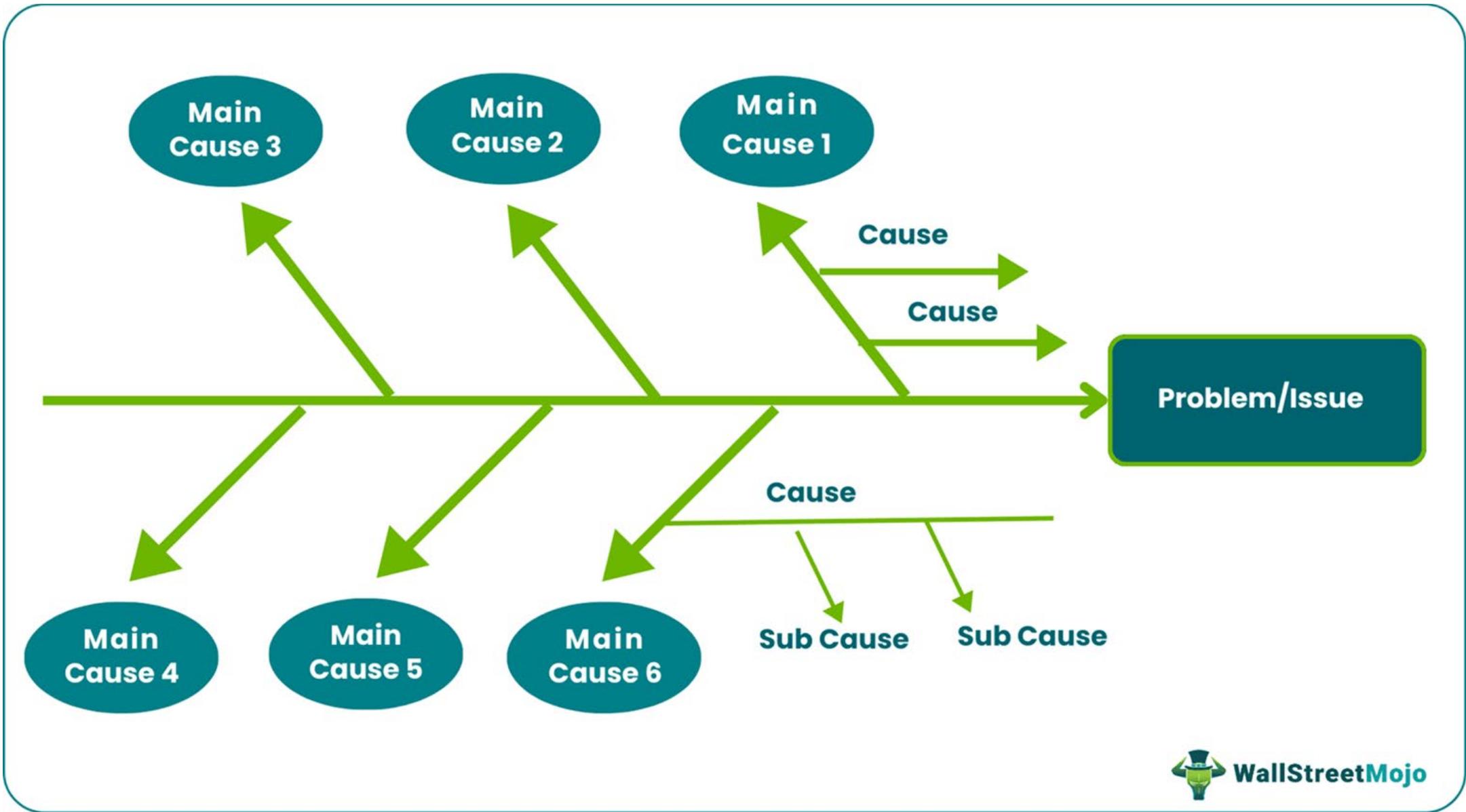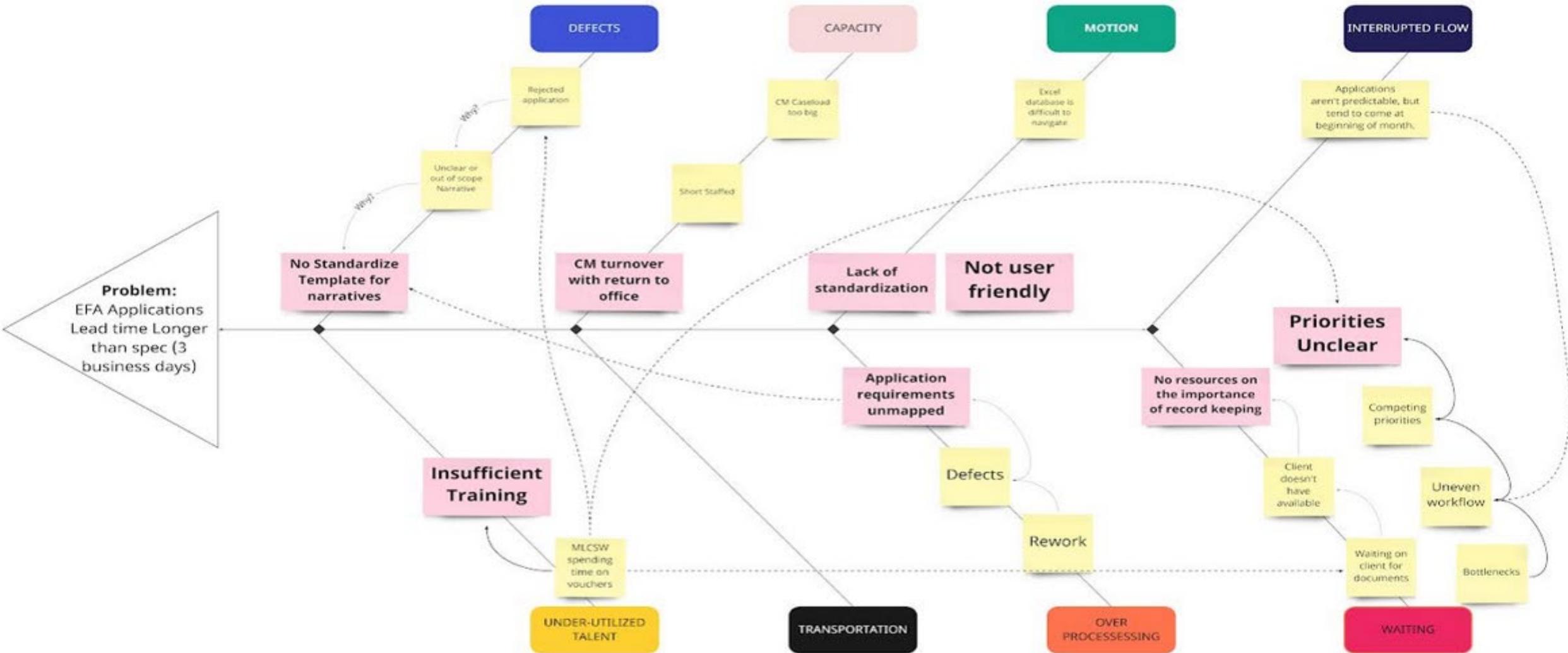
LET'S PRACTICE

WHAT'S YOUR PROBLEM?

- Problem:

- Why:

- Why:

- Why:

- Why:

- Why:

Contact Information

Amanda Norton

CQII Consultant
New York State Department of Health
AIDS Institute
90 Church Street, 13th floor
New York, NY 10007-2919

altn14@gmail.com