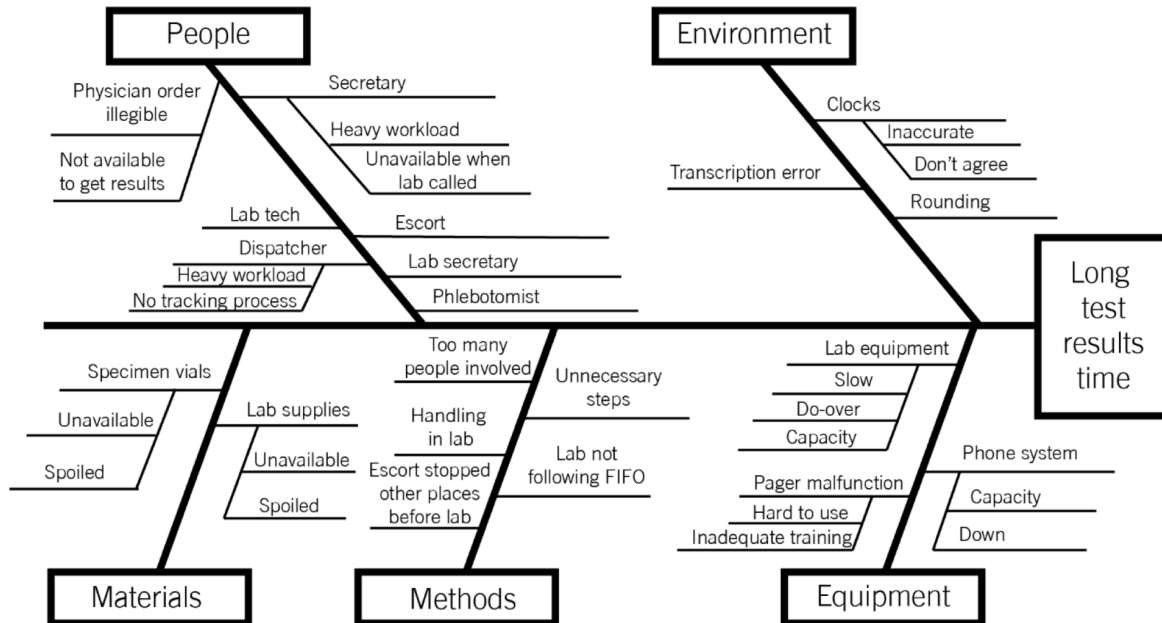


## Minute QI: The Fishbone Diagram (aka The Cause and Effect Diagram)

### Example: Cause and Effect Diagram



Courtesy of the Institute of Healthcare Improvement

A fishbone diagram, also known as Ishikawa diagram or cause-and-effect diagram, is a visual tool used to analyze and categorize potential causes of a problem or an effect. It's called a fishbone diagram because of its shape, resembling the skeleton of a fish, with the problem statement at the "head" and potential causes branching off like the bones of the fish.

In healthcare, a fishbone diagram can be immensely helpful in identifying the root causes of quality issues. Here's how it works:

1. Identify the problem: Begin by clearly defining the quality issue or problem you're facing in healthcare. This could be anything from patient wait times to medication errors.
2. Create the diagram: Draw a horizontal line representing the problem statement, like the spine of the fish. Then, draw diagonal lines branching off from the spine to represent different categories of potential causes. Common categories in healthcare might include people (staff), process, equipment, environment, or policies.

3. Brainstorm causes: With the categories established, gather a multidisciplinary team of stakeholders involved in the process. Brainstorm and list potential causes under each category. This encourages a comprehensive examination of all possible factors contributing to the problem.

4. Analyze and prioritize: Once all potential causes are listed, analyze each one to determine its significance and relevance to the problem. This might involve further investigation, data collection, or consensus-building among team members. Prioritize the causes based on their impact and feasibility of intervention.

5. Develop solutions: With the root causes identified and prioritized, develop targeted solutions or interventions to address each cause. These solutions should be evidence-based, practical, and aimed at preventing the recurrence of the problem.

6. Monitor and reassess: Implement the solutions and continually monitor their effectiveness. Periodically reassess the problem using the fishbone diagram to ensure that the root causes have been adequately addressed and to identify any new issues that may arise.

By systematically analyzing the contributing factors to a quality issue, a fishbone diagram enables healthcare teams to gain a deeper understanding of the problem and develop more effective solutions to improve quality of care and patient outcomes.