**Cause & Effect Diagram (Fishbone)**

A tool to brainstorm/identify possible **causes** of a problem and to sort the ideas into useful categories.

**WHY**

* A visual way to look at and organize critical thinking about potential causes
* To identify that there may be multiple causes to one effect or problem

**WHEN**

* In the analyze phase, before attempting to resolve the issue
* When a more structured approach is needed to assess contributing causes for a problem of greater complexity

**HOW TO**

1. Engage the team in brainstorming about potential causes of the problem.
2. Using the template, write the problem statement (effect) at the mouth of the “fish”.
3. Agree on the categories that are appropriate for the particular problem. The 6 standard manufacturing categories include the 6 “M”s, but may be modified as noted in the parentheses for health care:
   * Man (People)
   * Machines (Equipment)
   * Methods (Policies/Procedures)
   * Mother Nature (Environment)
   * Material (Supplies)
   * Measurement (Process)
4. Brainstorm about all the possible causes, creating branches from the appropriate major category/ies
5. Sub-branches from the causes may be created, if needed, to probe for the underlying or root cause/s

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| **TIPS**   * Keep focused on causes of the problem, not symptoms * The Fishbone can be combined with the 5 Whys tool, continuing to explore root causes |

**Resources:**

How to Use the Fishbone Tool for Root Cause Analysis

<https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/fishbonerevised.pdf>

IHI Videos: Cause & Effect Diagram and The Science of Improvement on a Whiteboard

**Template:**

* Fishbone

**Cause & Effect Diagram (Fishbone)**

**Materials / Supplies**

**Process**

**People**

**Effect (Problem)**

**Equipment**

**Policy /**

**Procedure**

**Environment**