

# Fishbone Diagram WORKSHEET

## INTRODUCTION

The fishbone diagram is a tool to help the quality improvement team identify the causes and effects of an event and get to the root cause. The problem or effect is identified at the head or mouth of the fish. Contributing causes are listed on the smaller “bones” under various cause categories. The team looks at the categories and thinks of all the factors affecting the problem or event. Use the fishbone diagram to keep the team focused on the causes of the problem, rather than the symptoms or the solutions.

## HOW TO USE

Use this worksheet to identify possible causes of a problem and to sort ideas into useful categories. The team should include members who have personal knowledge of the processes and systems involved in the problem or event being investigated and follow these steps:

1. Agree on the problem statement, also referred to as the effect. This is written at the mouth of the “fish.” Be as clear and specific as you can about defining the problem. Be aware of the tendency to define the problem in terms of a solution. For example, “*We need more of something.*” The problem is what happened.
2. Agree on the major categories of causes of the problem, written as branches or “bones” from the main arrow. Major categories in health care settings often include: equipment/supply factors, environmental factors, rules policy/procedure factors, and people/staff factors.
3. Brainstorm all the possible causes of the problem. Ask, “*Why does this happen?*” As each idea is given, the facilitator writes on the fishbone diagram under the appropriate category. These are contributing or causal factors leading to the problem. Causes can be written in more than one place if they relate to several categories.
4. The team again asks, “*Why does this happen?*” about each cause. Write sub-causes branching off the cause bones as they are identified until the team reaches a useful level of detail to be able to test a change.
5. The team can then identify the top three causes through discussion or multi-voting technique to begin action planning or PDSA worksheet.

## TIPS

- Consider drawing your fishbone diagram on a flip chart or large dry erase board.
- Make sure to leave enough space between the major categories on the diagram so that you can add minor detailed causes later.
- When you are brainstorming causes, consider having team members write each cause they can identify on a sticky note and place it on the diagram. Continue going through the group and identifying more factors until all ideas are exhausted. This encourages each team member to participate in the brainstorming activity and voice their opinions.
- Note that the “five-whys” technique is often used in conjunction with the fishbone diagram. Keep asking why until you get to the root cause.
- Another way to help identify the root causes from all the ideas generated is to consider a multi-voting technique. Have each team member identify the top three causes of the problem or event. Ask each team member to place three tally marks or colored sticky dots on the fishbone next to what they believe are the root causes that could be addressed.

# Problem Statement

