

Best Practices Tools

Six-Step Problem Solving Process

Step 1: Describe the Problem

- What is the problem?
- When does it occur?
- Where does it occur most often?
- Is it ours, do we own it?
- Who tends to be involved with the problem most often?
- How do we know this? Keep in mind the problem may change in scope as you examine it more closely at each step. Work from data and not from assumptions or opinions.

Step 2: Identify the Root Causes of the Problem

- A method for identifying the root cause is to ask “why” five times for each suggested cause.
- After identifying the causes, you may need to redefine the problem statement. You may discover additional problems which you were unaware of and that may be addressed using this same process.

Partners **IN** Progress

SMACNA & SMART—Building a Future Together

Step 3: Brainstorm Possible Solutions

- Keeping the data and root causes of the problem in mind, brainstorm potential solutions.
- Remember the basic rules of brainstorming: no discussion or evaluative comments, keep it moving quickly, work off each other's ideas, and have fun with it. Encourage creativity. Combine, refine, and build on ideas. Consider what other organizations in similar situations have done.

Step 4: Select the Best Solutions

- Establish criteria for selecting a solution.
- Evaluate the potential solutions against your criteria; consider advantages and disadvantages.
- Once solutions have been selected, ask: "What could possibly go wrong if we do this?" If there is no way to counter serious obstacles, the team may need to think of other more appropriate solutions.

Step 5: Implement the Plan

- Develop a work plan to implement the proposed solution, including goals and tasks, staff responsible, due dates, additional resources, and date completed; decide how to monitor progress.
- If approval is required, implement after approval is obtained. It may be better to implement on a trial basis or small scale at first.

Step 6: Evaluate the Plan

- Identify what worked, what didn't work, and what adjustments need to be made.
- Determine how you will study the effects of the changes; you need to plan to make improvements as needed.

Partners **IN** Progress

SMACNA & SMART—Building a Future Together

Problem Solving Worksheet

1. Describe the problem (what is it, when does it occur, where does it occur most often, etc.):

2. Identify the root causes of the problem (ask why five times for each suggested cause):

3. Brainstorm possible solutions (remember the basic rules: no discussion or evaluative comments, keep it moving quickly, work off each other's ideas, and have fun with it):

4. Select the best solutions (establish criteria for selecting a solution, evaluate potential solutions against the criteria, consider advantages and disadvantages, ask: "what could possibly go wrong if we do this?"):

Partners **IN** Progress

SMACNA & SMART—Building a Future Together

5. Implement the plan (develop a work plan to implement the proposed solution and to monitor progress).

Goal/Task	Staff Responsible	Due Date	Additional Resources	Date Completed

6. Evaluate the plan (what worked, what didn't work, what adjustments need to be made?):

Plan	What Worked	What Didn't Work	What Adjustments Need to be Made