Quality Toolkit | Tree Diagram

DESCRIPTION

A tree diagram is a hierarchy of tasks and subtasks that is used to break down broad categories into finer levels of detail.

STRENGTHS

- Visually helps break down broad general categories into smaller more specific detail.
- Used as a communication tool to explain steps or details to others.

WEAKNESSES

- Might be time-consuming for simple situations.
- The more complex the problem the more complex it is to construct the diagram.

APPLICATIONS

1. After completing an affinity or interrelationship diagram for a more complete exploration of possible causes and or solutions.
2. Part of the root cause analysis when probing for root causes to a problem.
3. Anticipate potential issues before launching a new project or service.
4. Brainstorming possible outcomes or developing actions to carry out a solution.
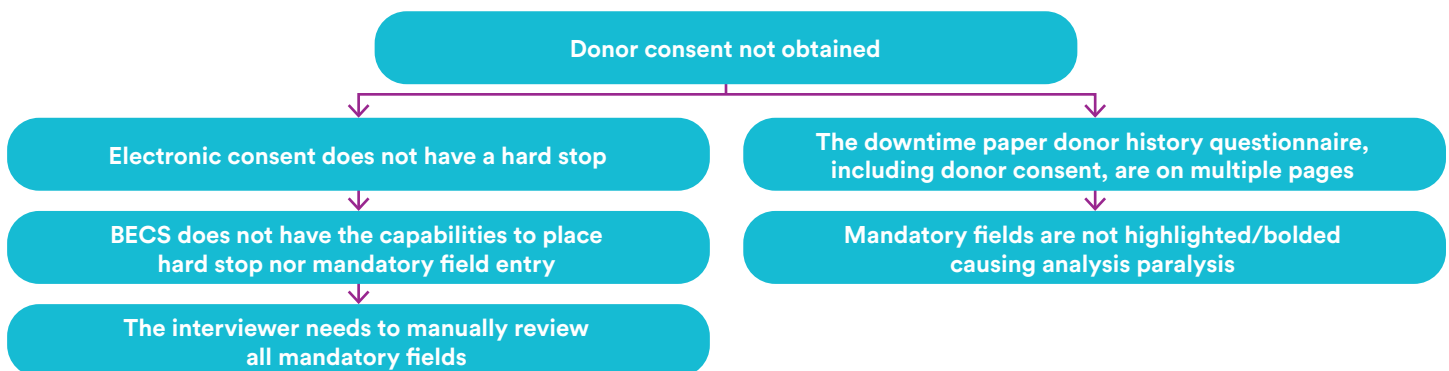
HELPFUL HINTS

To construct the tree diagram:

1. Identify the problem, goal, project, or plan and write it at the top of the work surface.
2. Start with the biggest, broadest idea and ask questions that will lead to the next level of detail.
   - For root-cause analysis, ask "what is the underlying cause (or causes) of the problem?"
   - For goal or project, ask: "what tasks must be performed to accomplish this or how can this be accomplished?"
3. Conduct a brainstorming session and write each idea in a line below the first statement. In addition, the team can use the ideas generated from the affinity diagram or interrelationship diagram.
4. Go through the ideas and identify whether all the items at this level are necessary.
5. Each new idea statement now becomes the subject. Continue asking the questions again to uncover the next level of detail. Create another tier of statements and show the relationship to the previous tier of ideas with arrows.
6. Continue to turn each new idea into a new subject statement and asking the questions. Do not stop with the tree diagram until specific actions/root causes have been identified for the objective.

Alternately, there are templates in Microsoft Word and Excel that can be used to help construct the Tree Diagram. The brainstorming session can be performed using a virtual meeting platform (e.g., Zoom, Microsoft Teams, Webex).

EXAMPLES

Problem: Donor consent not obtained is the most common nonconforming event

BECS= Blood Establishment Computer System