11. Quality Improvement Tool Name: *Tree Diagrams*

Source: The Public Health Quality Improvement Handbook, R. Bialek, G. Duffy, and J. Moran, Quality Press, 2009.

What it is:
- A method to take a broad objective and break it down into its sub components in a step by step approach.
- A tree diagram starts with one item that branches into two or more items in a logical manner
- A tree diagram helps you move your thinking step by step from generalities to specifics

When to use it:
- When a process is needed to focus a team on a logical thinking process.
- After an affinity diagram or ID graph and key issues are selected and need to be detailed.
- When we need to break down broad categories into finer and finer levels of detail and go from the general to specific – objectives to tasks to measures and so on.
- When a plan must be generated/mapped out, broad objectives must be broken down into specific implementation detail, root causes need to be identified or assignable tasks must be created.
- When contingency planning with anticipated obstacles is required
- When a simple communication tool is needed to explain details to others

How to use it:
- Develop a statement of the goal and write it at the far left of a piece of flip chart paper and put a box around it.
- Then utilize the ideas developed in the Affinity Diagram brainstorming session and arrange the ideas form broad to specific for each header card in a tree diagram format. Ask a question that will lead you to the next level of detail:
- If the Affinity Diagram process was not used ask the following questions about the goal statement.
  - "How can this be accomplished?"
  - "What causes this?"

- "Why does this happen?"
- "What tasks must be done to accomplish this?"
- Brainstorm all possible answers
- Write each idea to the right of the first statement. Show links between the tiers with arrows.
- Once the tree diagram is completed do a check: and make sure all the items at this level necessary for the one on the level above. Check your logic and flow. Ask the following check question at each level of the tree diagram:
  - If all the items at this level were present or accomplished, would they be sufficient for the one on the level above?
- Once the tree diagram is checked it can be used to prioritize task, develop contingency plans, or assign responsibilities.