Use a Fishbone Diagram to Find Root Causes and Effective Solutions

**WHAT IT IS**
A fishbone diagram is a way to visually diagram a problem’s root causes. This allows teams to address the root cause rather than focusing on symptoms.

**WHY DO IT**
“Solutions” that only address symptoms are not likely to succeed. Identifying the sources of a problem – the root causes – helps teams develop lasting solutions. The more often you do fishbone diagrams, the easier and faster it becomes!

**WHO SHOULD DO IT**
A small, focused team. For example:  
- HEWs, Nurses, EPI focal persons, and others experiencing or affected by the problem.  
- QIT members, including community leaders/members  
- Managers who might have insight into the problem, a role in solving the problem, or facilitation skills to help move the process along

**HOW TO DO IT**

1. **Draft a clear problem statement, on which all team members agree**
   Write the problem statement in the head of the “fish.” Draw a line with an arrow toward the head—this is the fish’s “backbone.” In the example shown here, the problem is low coverage.

2. **Brainstorm major categories that might be part of the problem**
   Connect them to the backbone, in “ribs.” Other common categories include health system, geography, materials, policy, environment, culture/tradition, methods, and information.

3. **Brainstorm contributing factors**
   Develop possible causes of the problem in each category (or choose a category where you can act). Attach each to the appropriate rib. Some contributing factor may fit into multiple categories.

4. **Push toward deeper causes**
   You might end up with several branches off of each successively smaller rib. Continue to go deeper for a clear understanding. Ask “why” 2-5 times, as in the example.

5. **Identify the main reasons/root causes by looking for causes that appear more than once**
   Addressing the root cause can affect many contributing factors and have far-reaching effects. 
   - The likely impact of addressing that root cause
   - The greater the likely impact, the more important it is to address
   - How difficult it will be to address the root cause
   - The resources available to address the root cause
   - Whether there is a logical order in which to address the root causes
   - The process of finding the right root cause to address might involve trial and error.
   - If the team decides to address an identified root cause and the problem continues to occur, it probably is not the actual root cause.
   - Take another look at the root causes and keep asking “Why?”

6. **Identify and implement one or more solutions that address the root cause(s)**
   A few notes:  
   a. Removing a contributing factor might improve the situation, but it will not necessarily keep the problem from occurring. This is one way to distinguish a contributing factor from a main reason/root cause.  
   b. Try solutions within your control to make the situation better.  
   c. Share your fishbone with higher-ups. Ask them for help addressing root causes your team cannot address.

Here’s what the “why’s” would look like in a different format:

**Problem**
Low immunization coverage

**Why?**
Poor linkage to community

**Why?**
Health committee not mobilizing

**Why?**
Health committee not informed of role