

# Cause and Effect (Fishbone) Diagram

## What is it and how can it help me?

This diagnostic tool—also known as a fishbone diagram—helps teams identify, sort, and visually display all possible causes of a problem or outcome.

A cause and effect diagram:

- Guides teams in exploring the primary and secondary causes of a complex problem
- Shows how these various causes are interrelated
- Sparks conversation and builds shared understanding about these causes
- Supports quality improvement by giving teams an opportunity to brainstorm possible solutions to these causes

## How to use this tool:

- **Box 1:** Identify the **main problem** that you and your team wish to solve or improve upon. Record the problem in the box labeled 1 (which represents the head of the fish).
- **Box 2:** Discuss the **potential primary causes** of the problem as a team. Some typical categories of primary causes are people, processes, policies/environment, technology/materials, and systems. Record the primary causes of the problem in the boxes labeled 2 (which represent the spines of the fish).
- **Line 3:** Further discuss the **secondary causes** of the problem—in other words, the specifics of how each primary cause contributes to the problem. Record these secondary causes under each corresponding primary cause on the lines labeled 3 (which represent the bones of the fish).
- **Line 4:** Continue to explore these secondary causes by asking “Why?” until you have identified a cause that is specific enough that you can test a change to it and measure its effect. (For more guidance, refer to [The Five Whys Worksheet](#).) Record any **additional causes** of the problem under each corresponding secondary cause on the lines labeled 4.

### KEY

1: Main problem

2: Primary root cause

3 Secondary root cause

4 Sub-cause of secondary root cause

Note: there is no set number of primary and secondary root causes that should be identified. Please adjust to meet your needs.

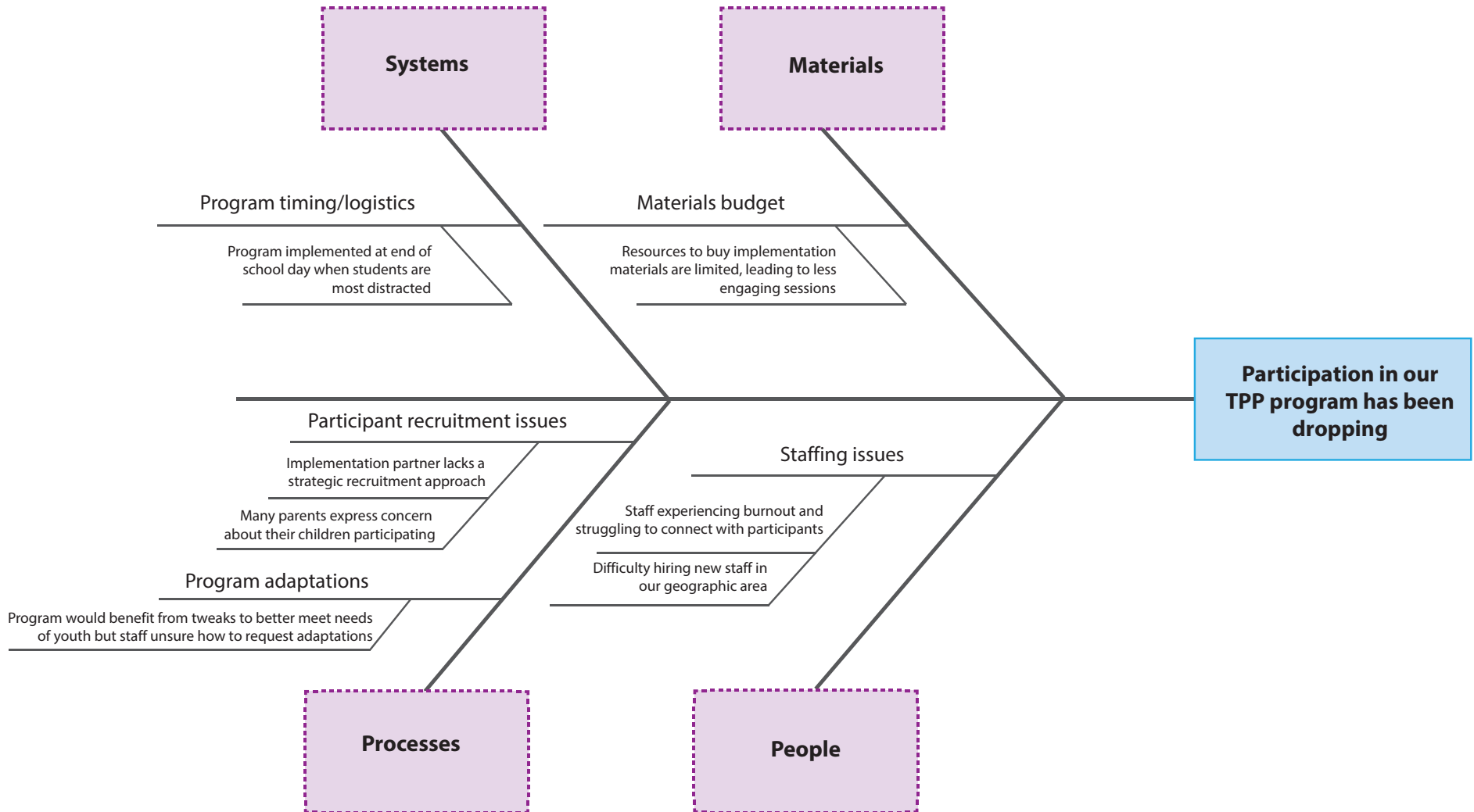
## After filling out this tool:

- Reflect on the completed diagram, which now shows all potential causes affecting your complex problem.
- Discuss whether your understanding of the problem has changed and, if so, how.
- Identify potential solutions to address the causes of the problem. (For more guidance, refer to the [Agreement and Certainty Matrix](#).)

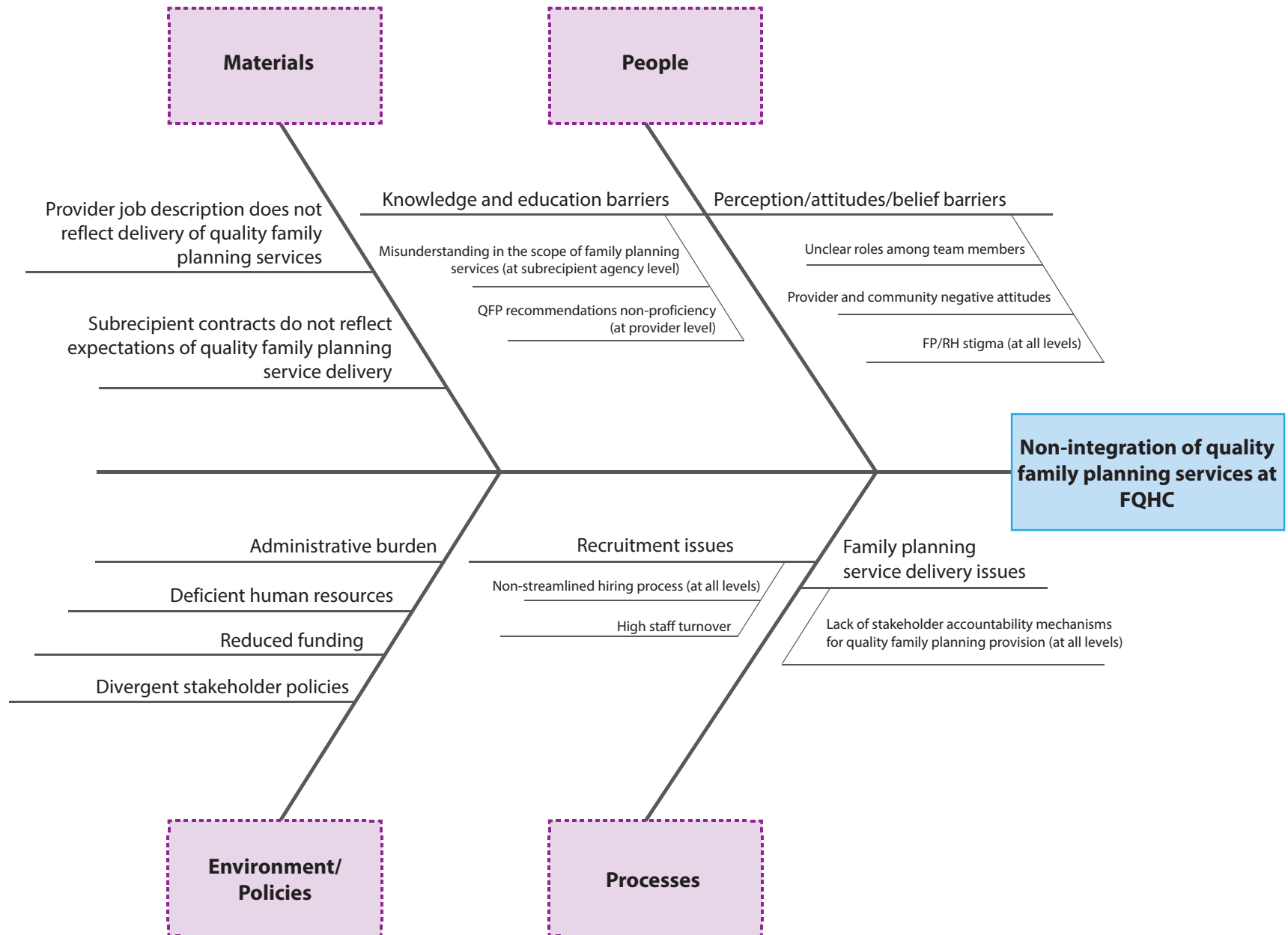
### References:

1. Ishikawa K, 石川馨. (1986) Asian Productivity Organization. Guide to Quality Control.
2. The Fundamentals of Cause and effect (aka Fishbone) Diagrams. (n.d.). Retrieved April 24, 2018, from <https://www.isixsigma.com/resource-pages/the-fundamentals-of-cause-and-effect-aka-fishbone-diagrams/>

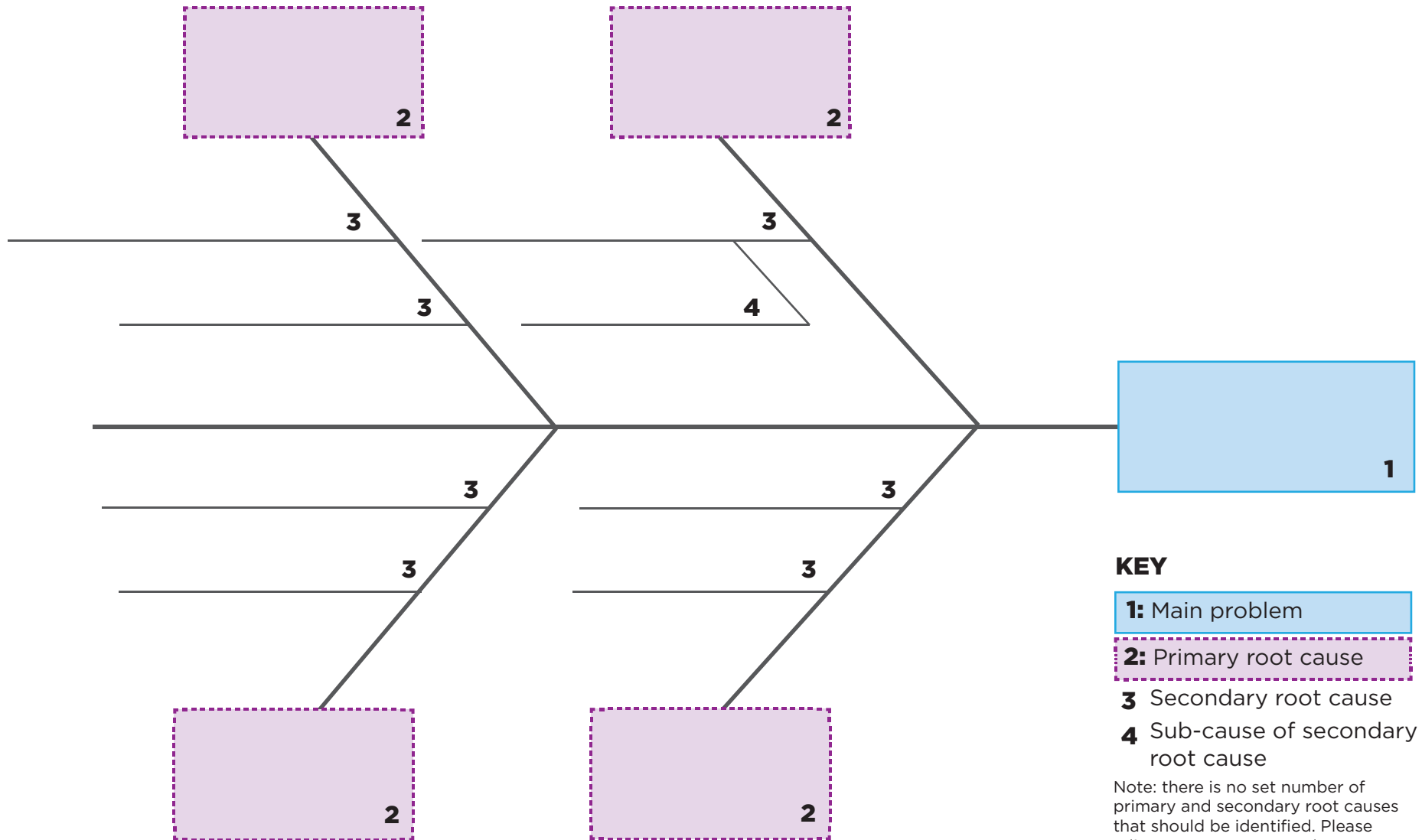
# Teen Pregnancy Prevention (TPP) program example



# Family planning project example



# Cause and effect (fishbone) diagram template



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