

Fishbone Diagram & The 5 Whys

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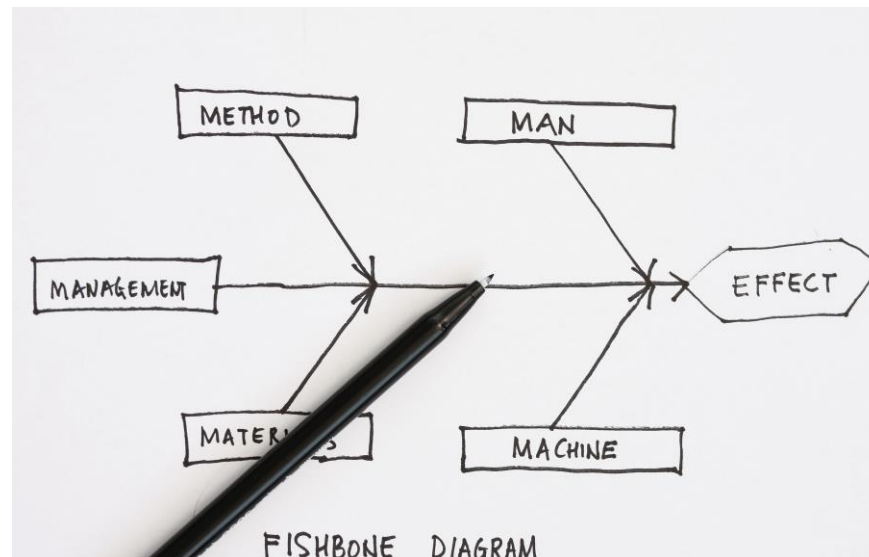
Fishbone Diagram

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What is it?

- Also known as Cause and Effect Diagram or Ishikawa Diagram
- Visually displays multiple causes for a problem
- Helps identify stakeholder ideas about the causes of problems
- Allows the user to immediately categorize ideas into themes for analysis or further data gathering
- Uses the “five-whys” technique in conjunction with the fishbone diagram



When do I use it?

- When identifying possible causes for a problem
- When having difficulty understanding contributing factors or causes of a system failure
- Most helpful as a team process

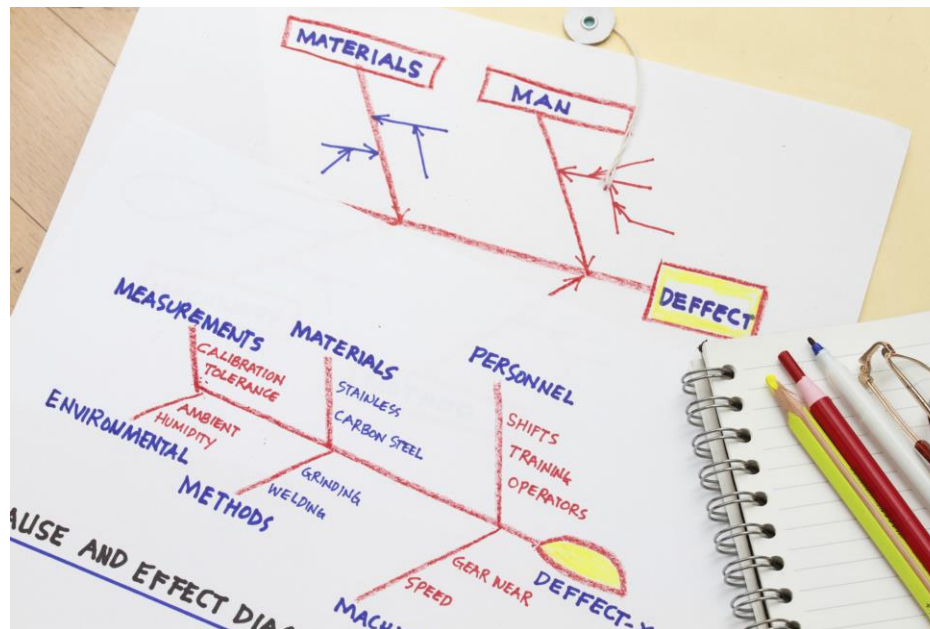


How is it used?

1. Agree on the problem statement (also referred to as the effect). **Written at the mouth of the fish.**
2. Agree on the major categories of causes of the problem.
Written as branches from the main arrow.
 - a) Major categories include: equipment or supply factors, environmental factors, rules/policy/procedure factors, and people/staff factors
3. Brainstorm all the possible causes of the problem. Ask “why does this happen?” **Write it as a branch from the appropriate category.**

How is it used? Continued.

4. Again asks “Why does this happen?” about each cause. Write sub-causes branching off the cause branches.
5. Ask “Why?” and generate deeper levels of causes and continue organizing them under related causes or categories.



What are some potential pitfalls?

- Easy to focus on the symptoms instead of the causes of the problem
- Without input from key players, it's easy to make assumptions about what you *think* the problems are instead of what the problems *actually are*.



Additional Resources

- Templates
 - <http://asq.org/learn-about-quality/cause-analysis-tools/overview/fishbone.html>
- Examples
 - <https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/fishbonerevised.pdf>



The 5 Whys

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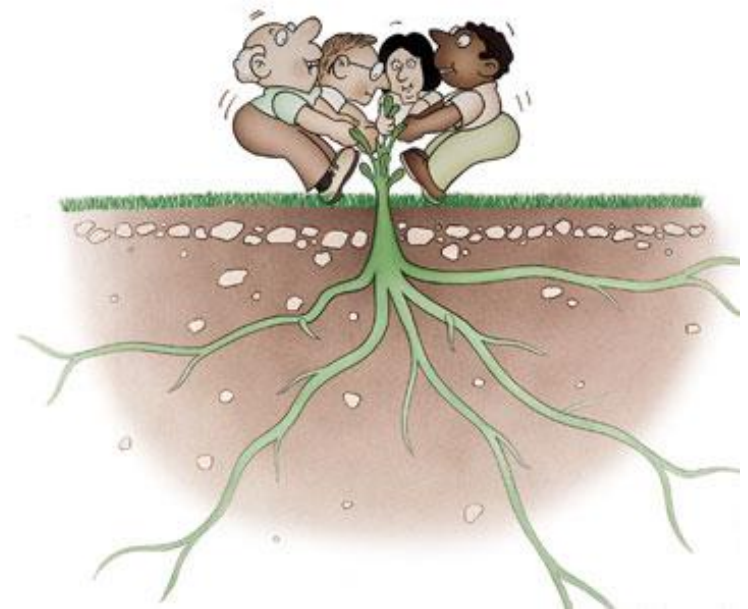
The 5 Whys – What is it?

- A technique developed by Sakichi Toyoda to uncover the cause and effect relationships of a problem and determine the problem's root cause to help identify the solution.
- A detailed questioning process designed to drill down into the details of a problem and peel away the “symptoms.”

why?
why?
why?
why?
why?

The 5 Whys – When do we use it?

- To develop a better and more detailed understanding of the problem
- To implement solutions that don't just address the symptoms and have a lasting more permanent impact
- To get to the **ROOT CAUSE**



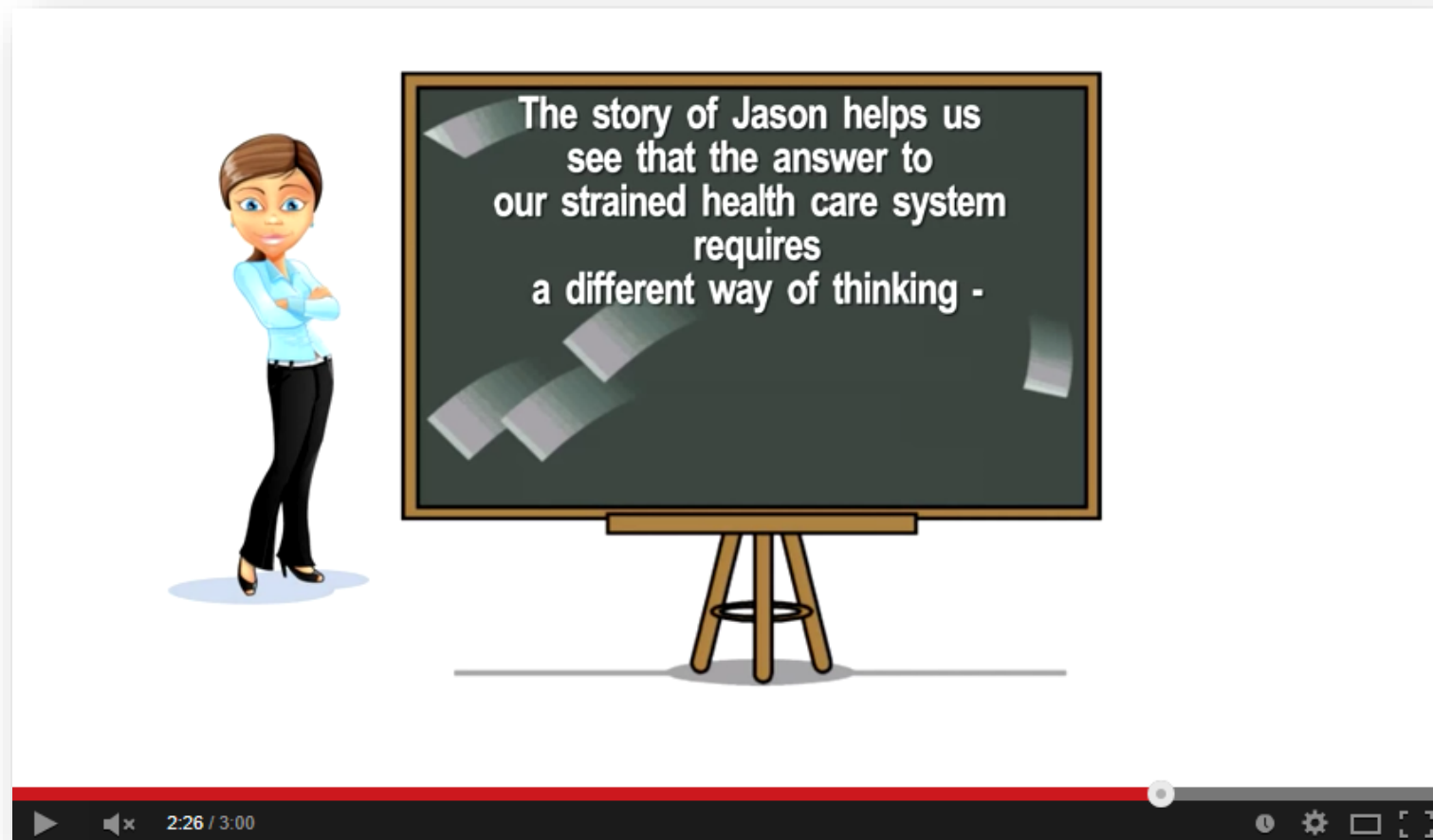
The 5 Whys – How is it used?

- Identify a cause of a problem – Got a speeding ticket
- Ask the question: “WHY?” – Late for work
- Ask the question: “WHY?” – Woke up late
- Ask the question: “WHY?” – Alarm didn’t work
- Ask the question: “WHY?” – Batteries were dead
- Ask the question: “WHY?” – Forgot to replace them

Solution: Buy an alarm clock the plugs in or buy batteries regularly on a set interval (e.g. every 4 months)

Note: It may take less or more than five times to reach the root cause of a problem.

Example - Video



Source: www.solvingsocialproblems.ca from Public Health Agency of Canada

Activity



Story Board





Harford County Health Department (HCHD)

January - August 2013

Quality Improvement Story Board

Improving Communication with Limited English Proficiency (LEP) Populations

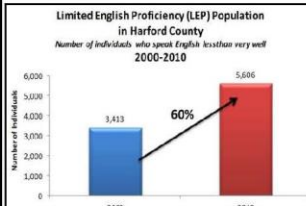


PLAN

Identify an Opportunity & Plan for Improvement

1. Getting Started

The HCHD initiated QI efforts in order to improve its approach for addressing the needs of Limited English Proficiency (LEP) populations residing in Harford County. Due to the increasing number of LEP populations in the County, HCHD staff realizes the importance of improving communication in order to better serve client's needs.



2. Assemble the Team

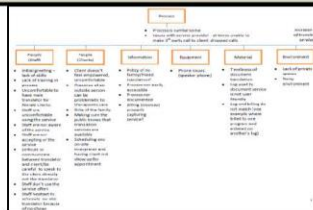
The QI team was composed of at least one representative from each HCHD program to ensure department-wide concerns were addressed.



AIM STATEMENT: Increase the average number of times translation services are used by HCHD staff to serve Limited English Proficiency clients by 7% from 23 times per month to 25 times per month between June 1, 2013 and July 31, 2013.

3. Examine the Current Approach

The HCHD QI team flowcharted the current phone translation process. The flowcharting helped to identify issues with translation services. The team also identified additional issues based on personal experience, discussions with staff, and program data.



After completing the issues chart, the team ranked the issues based on its impact on the goal and how frequently the problem occurs. From the top-ranked issues, the 5 why technique was used to determine the following root causes:

- Marketing translation services is costly
- Non-standardized translation process
- Undefined criteria for when to use translation services
- Lack of uniformity/script for initial contact
- No advertisements for bilingual candidates



4. Identify Possible Solutions

Potential solutions were brainstormed for each root cause. Solutions were prioritized based on its impact on eliminating the problem and its speed and cost to implement. From the top-ranked solutions, an improvement theory was created.

5. Develop an Improvement Theory

If we: Create clear and concise guidance on when and how to use translation services

- Develop a training presentation and video
- Communicate translation services to the public, AND
- Establish a minority health advisory group

Then we believe we will:

- Increase use of translation services

DO

Test the Theory for Improvement

6. Test the Theory

The following actions were implemented:

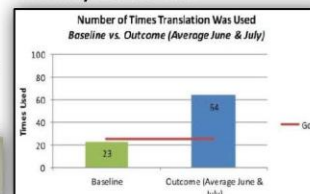
- Created 20 LEP Manuals which included guidance on how to use translation services.
- Trained 144 staff members on the LEP policy and translation services.
- Disseminated 250 LEP brochures to the community.

BASELINE: Translation services used 23 times per month

CHECK/STUDY

Use Data to Study Results of the Test

7. Study the Results



On average, translation services were used 64 times per month between June and July 2013.

LESSONS LEARNED

1. Uniformity is key.
2. Some elements are outside of our control.
3. Training of individual staff is important.

ACT

Standardize the Improvement and Establish Future Plans

8. Decide Next Steps

The improvement theory was **ADOPTED**. To institutionalize, a feedback loop will be established to ensure new LEP information is relayed from the LEP Coordinator to the LEP Representatives to staff and that comments/concerns will be sent back through the loop.

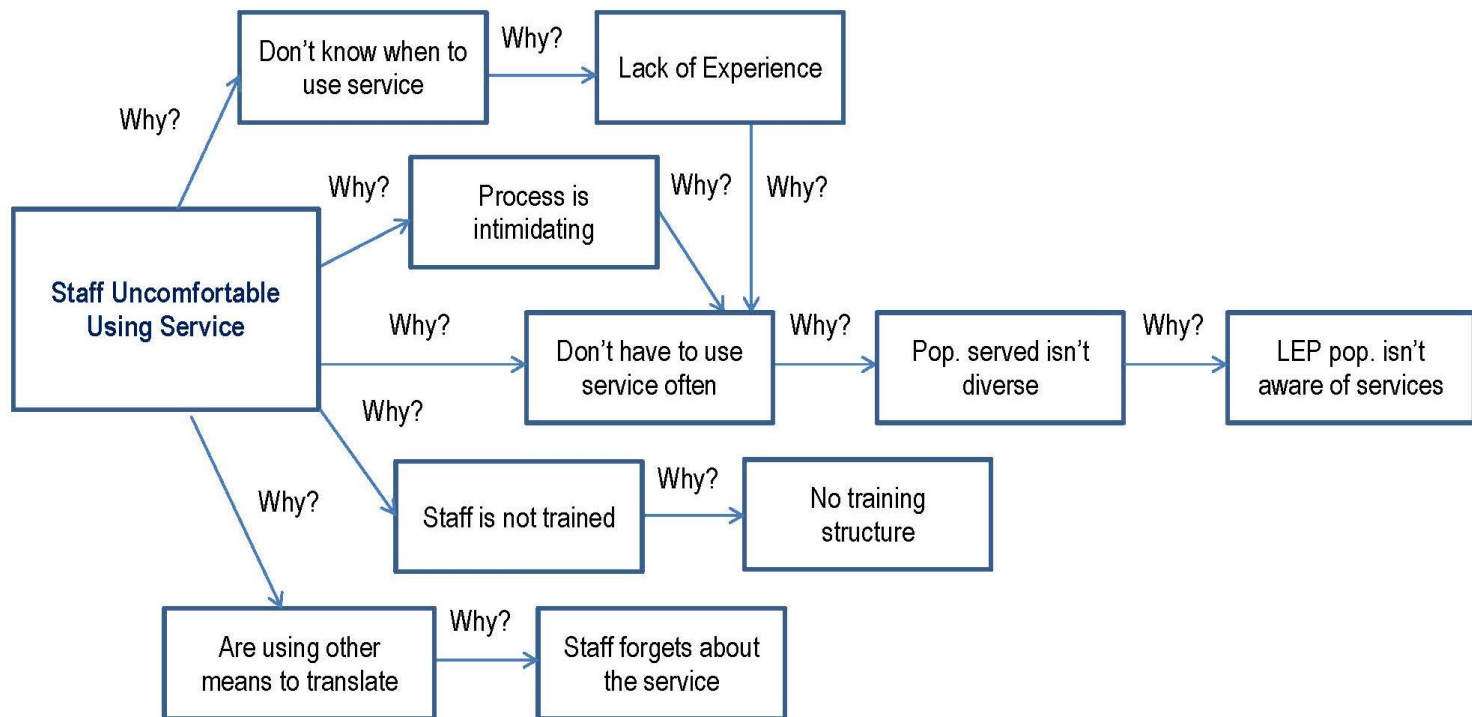
9. Establish Future Plans

While the training and guidance increased documentation of translation service use, the group agreed in order to increase translation use further more clients need to be brought into the HCHD through outreach efforts.

Example:

Harford County Health Department – LEP Project, 2013

Root Cause Analysis



Thank you!

