Fishing for Solutions: "Living Cause and Effect Diagram"

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Agenda

- Purpose and uses of a cause and effect diagram for improvement

- The Living Cause and Effect Diagram

- Report Back
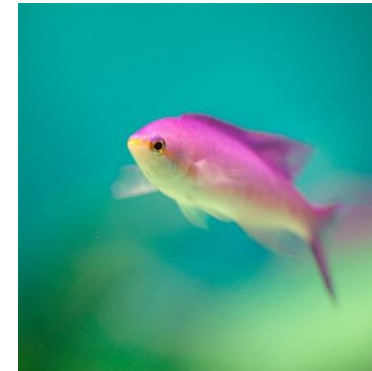
Learning Objectives

- Understand the purpose and uses of a Cause and Effect Diagram

- Appreciate the relationship of the Cause and Effect Diagram to quality improvement in HIV Care

- Understand the dynamic connection between causes and an effect such as increased viral load suppression

- Understand and participate in the living cause and effect diagram interactive exercise

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Cause and Effect
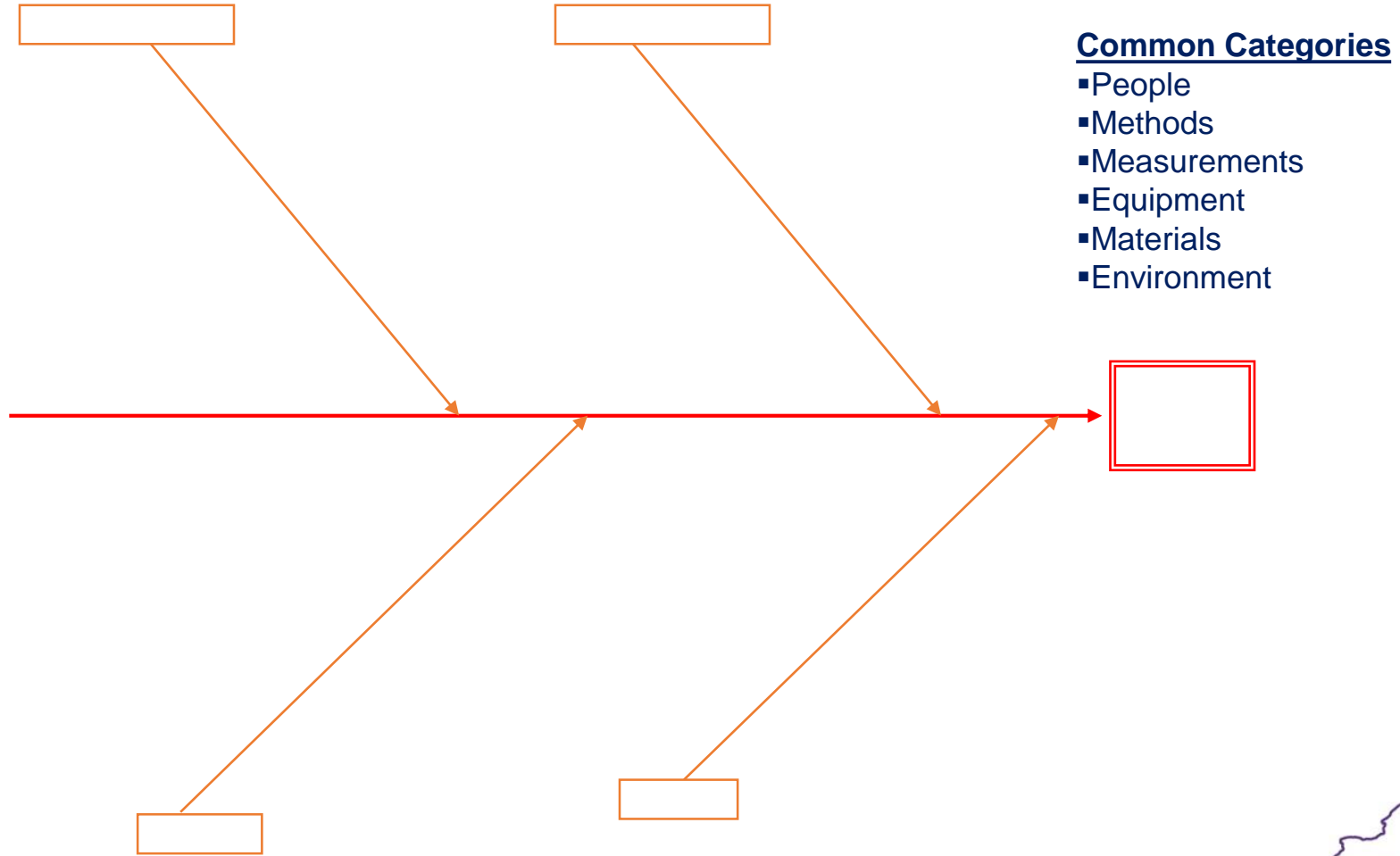# Diagram
aka the Affinity Fishbone
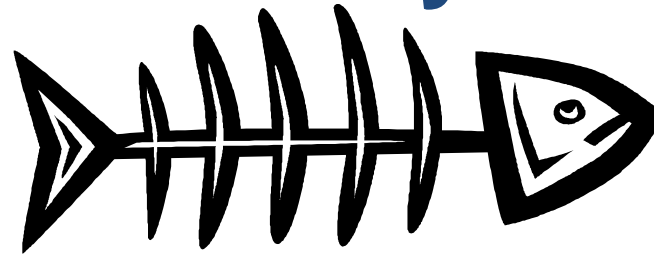
Cause-and-Effect Diagram

- Organizes and displays all causes and sub-causes that may influence a problem, outcome, or effect

- Helps push people to think beyond the obvious causes (money and time) to find some causes that they can fix/improve

- Helps organize potential solutions and make clear who should be involved in solutions

- Encourages a balanced view
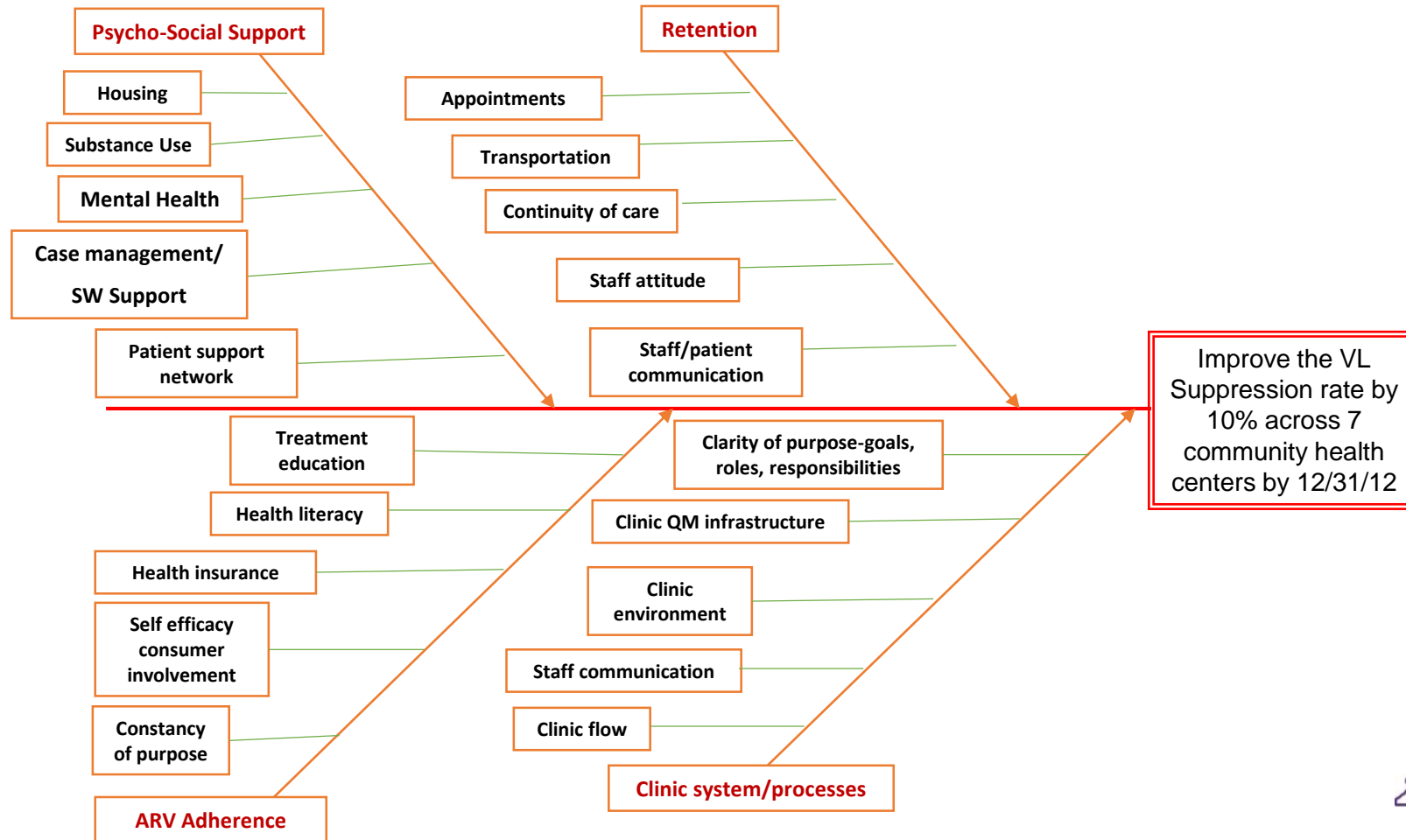
- Demonstrates complexity of the problem

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Cause and Effect Diagram

Common Categories
▪People
▪Methods
▪Measurements
▪Equipment
▪Materials
▪Environment

Example of Cause and Effect Diagram

Community Health Center Quality Learning Network HIV Viral Load Suppression Quality Improvement Project

Psycho-Social Support

- Housing
- Substance Use
- Mental Health
- Case management/ SW Support
- Patient support network

Retention

- Appointments
- Transportation
- Continuity of care
- Staff attitude
- Staff/patient communication

- Treatment education
- Health literacy
- Health insurance
- Self efficacy consumer involvement
- Constancy of purpose

ARV Adherence

- Clarity of purpose-goals, roles, responsibilities
- Clinic QM infrastructure
- Clinic environment
- Staff communication
- Clinic flow

Clinic system/processes

Improve the VL Suppression rate by 10% across 7 community health centers by 12/31/12

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The Living Cause and Effect Diagram

- **Cause Captains** - Lead each Cause Category, aimed at achieving the desired effect, which in this exercise is increased viral load suppression

- **Fishing Boats** - One Cause Captain per fishing boat (table) leads the discussion

- **Sub(marine)-cause Teams** - 4 teams of participants will rotate around the room to discuss sub-causes for each cause category
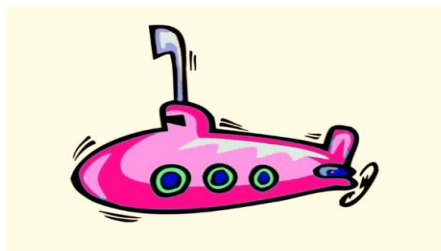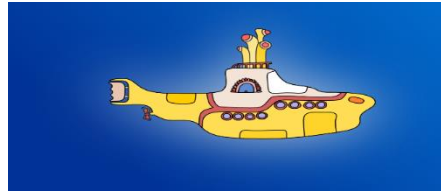
The Causes
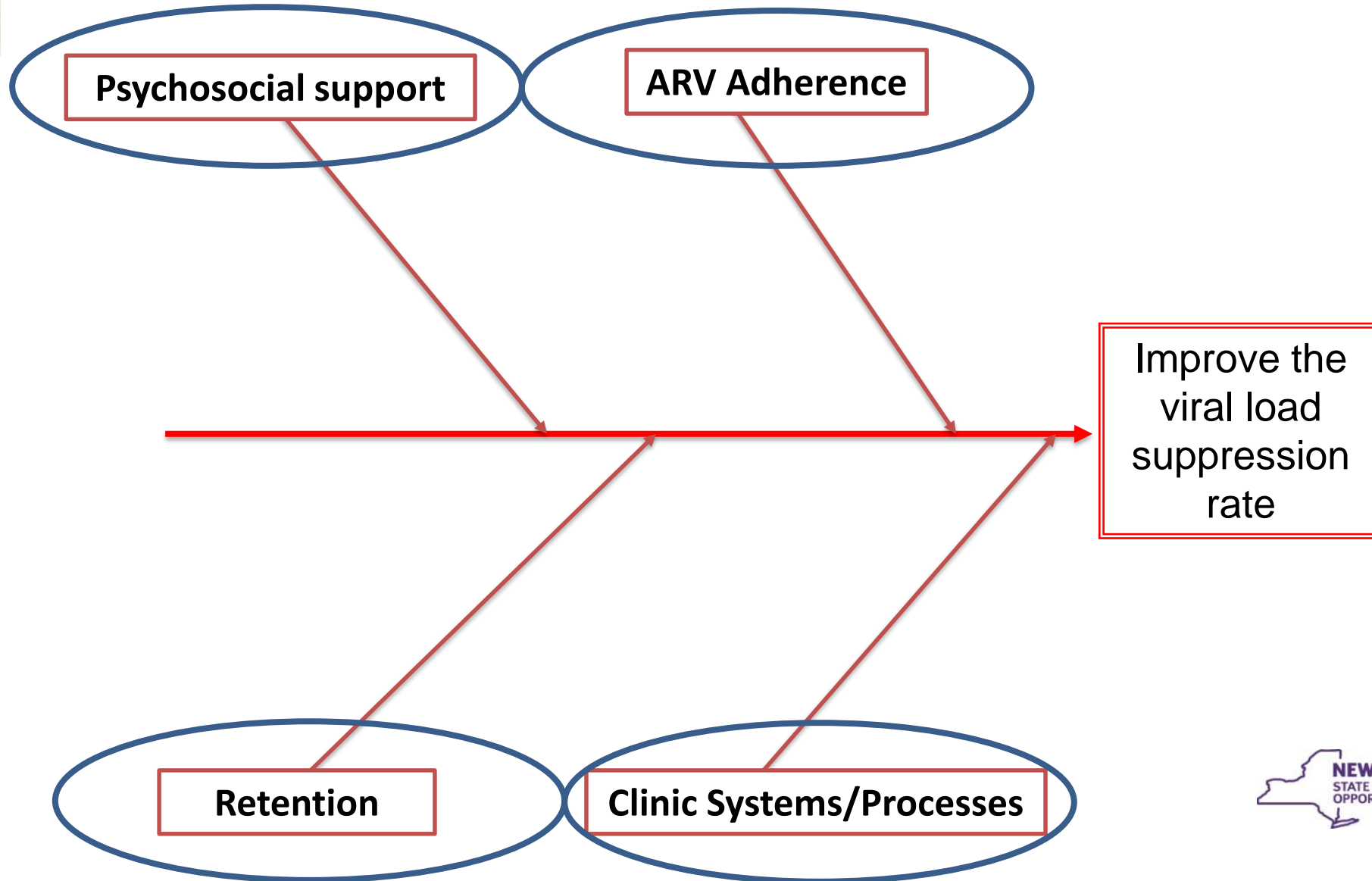
The Four Sub(marine)-Cause Teams

- Green Submarine Team

- Yellow Submarine Team

- Pink Submarine Team

- Shrub-marine Team

(shaped like a giant amphibious shrub)

The Causeway

- The sub(marine)-cause teams are given a large fishbone with the main causes
- The teams cruise along the causeway stopping for 20 minutes at each fishing boat (table) to discuss sub-causes and improvement activities related to each cause category.
- The sub-causes and improvement activities are written on sticky notes and added to the large fishbone

Talking Points for Cause Captains

- Do team members' improvement activities (sub causes) address the challenge area (cause) being discussed at this table?

- Do participants engage in other improvement activities in this category aimed at achieving the goal?

- What else could be done in this cause category to elicit the desired effect?

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Go Fish!

Report Back to the Port

- Causes Captains, what was the best sub-cause/improvement idea that you heard on your fishing boat?

- Sub(marine)-cause teams, what improvement ideas are you going to use back on land with your own clinics to improve viral load suppression

References

Bauer, J.E.; Duffy, G.L. and Westcott, R.T. (2006). *The Quality Improvement Handbook*. Milwaukee: ASQ Quality Press.

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