Root Cause Analysis

KAREN MEAD

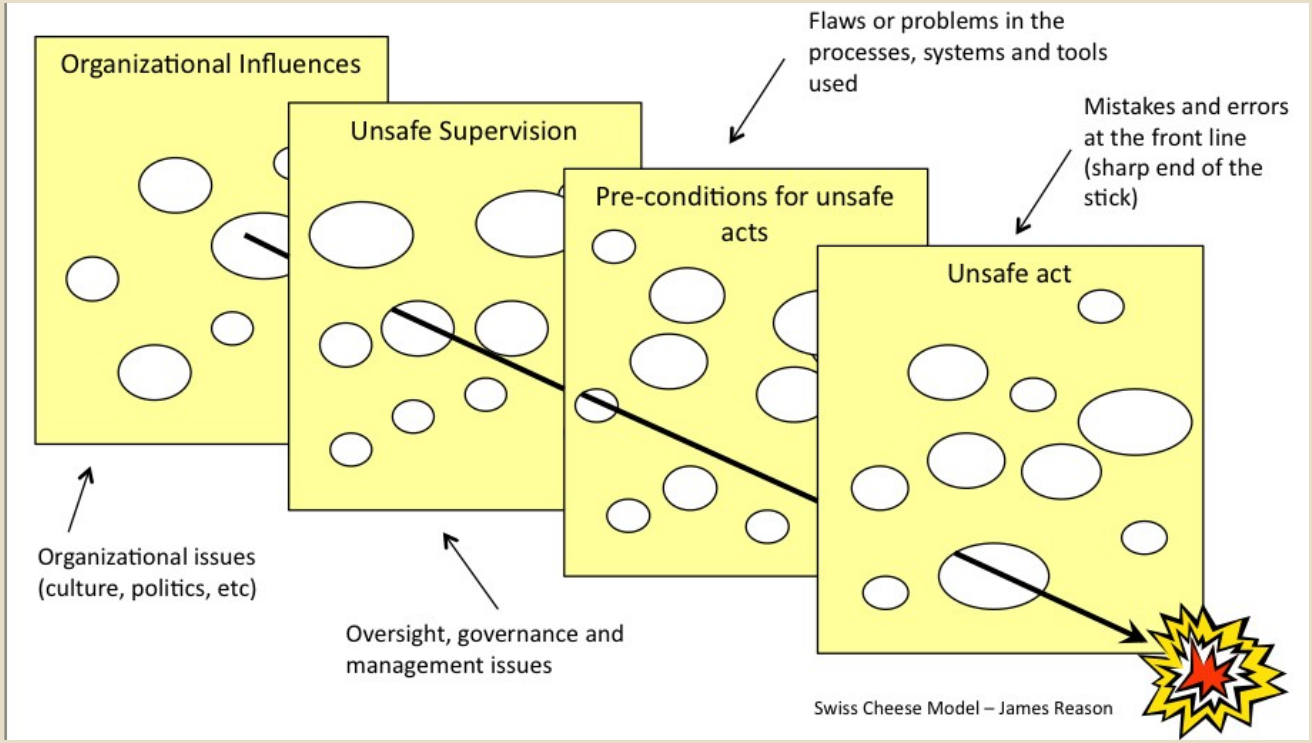
SPECIALIST PRACTITIONER OF TRANSFUSION

NORTH BRISTOL NHS TRUST

What is Root Cause Analysis ?

Root Cause Analysis (RCA) is a technique used to identify why a problem occurred in the first place

Swiss Cheese Model



Many layers of defense usually lie between hazards and accidents but there are flaws in each layer which if aligned can allow the accident to occur.

The Root Cause Analysis Process

Step 1.
- Define the problem

Step 2.
- Collect Data

Step 3.
- Identify possible causal factors

Step 4.
- Identify the root causes

Step 5.
- Recommend and implement solutions

Three basic types of causes

Physical

- the brakes failed on the club car

Human

- nobody replaced the brake fluid

Organisational

- everyone though it was someone else's job

Human Error

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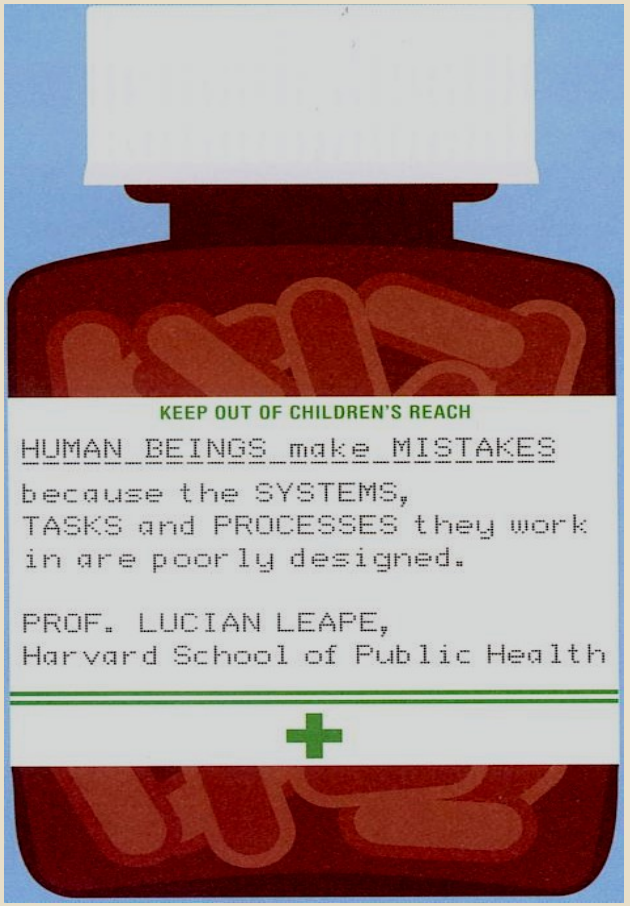
Human Error - Myths

- **The Perfection Myth**

  - if we try hard enough we will not make any errors

- **The Punishment Myth**

  - if we punish people when they make errors they will make fewer of them



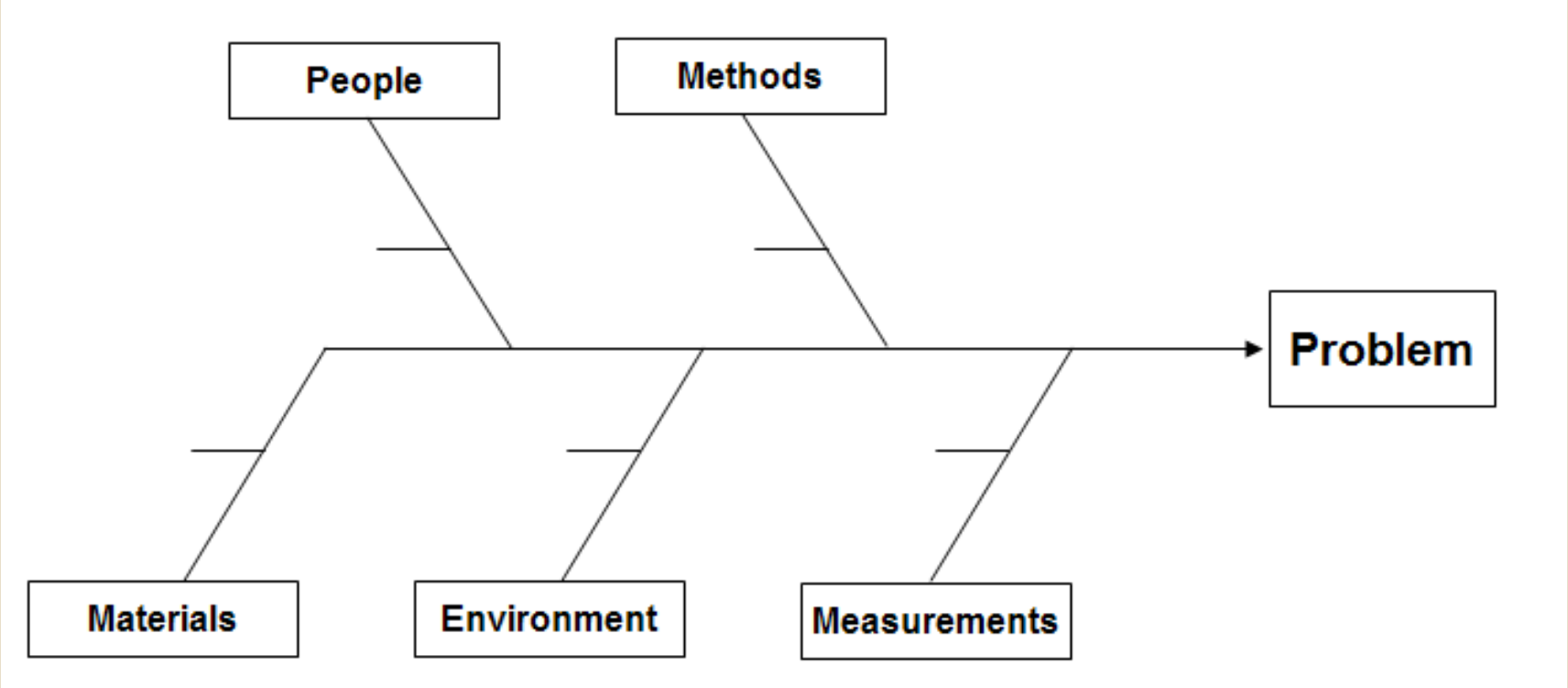
Five Whys

Problem: Your client is refusing to pay for the leaflets you printed for them.

- **Why?** The delivery was late, so the leaflets couldn't be used.
- **Why?** The job took longer than we anticipated.
- **Why?** We ran out of printer ink.
- **Why?** The ink was all used up on a big, last-minute order.
- **Why?** We didn't have enough in stock, and we couldn't order it in quickly enough.

- **Counter-measure:** We need to find a supplier who can deliver ink at very short notice.

Fishbone Diagram



Reducing the likelihood of error

- **Simply telling people to be more careful does not work!**

Safety Solutions / Actions

Remedial actions should …

- Draw on the experience of NHS staff + patients / public
- Be simple and cost effective (proportionality)
- Target root causes or lessons learned
- Offer a long term solution to the problem
- Be SMART (Specific, Measurable, Achievable, Reasonable + Timed)
- Have a greater positive than negative impact on other procedures, resources and schedules (risk assess and evaluate before implementation)
- Be shared

Take Home Messages

- RCAs are used to identify and correct problems, and should not to used to blame individual(s)
- All contributing factors should be explored
- As much information as possible is required
- Suggestions for improvement should be given
- Feedback should be provided to everyone who contributed to the RCA and anyone who is affected by the actions

Any Questions?

Reference

- National Patient Safety Agency Website: http://www.nrls.npsa.nhs.uk/resources/collections/root-cause-analysis/rca-training-course-overview/