

Safe and Effective Systems

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Objectives

- Give two examples of how safety principles may benefit your work
- Understand that just culture does and accountability are not mutually exclusive
- Describe approaches to event investigation that focus on system and process defects rather than individual behavior.



- Setting the stage: story, swiss cheese model
- Just and accountability vs blame
- De-siloing: one goal, one brand
- Investigating an event: standard methodology, tool kit, interdisciplinary team, hospital example – amiodarone
- Metrics and data
 - Early warning system
 - Bundles



- Failure of the O-rings in the Challenger disaster
 - Smart people knew something was going on with the O-rings before left off
 - Smart people provided explanations that fit the culture and expectations
 - Normalized the findings by redefining what was acceptable



It is unacceptable to have hot gas leak past the gaskets

It is acceptable to have hot gas leak past the gaskets

It is normal to have heat on the primary O-ring

It is normal to have erosion on the primary O-ring

It is normal to have gas blowby past the secondary O-ring

A child who has been in the hospital for an extended period. We find ourselves saying “oh that’s just Johnny.” Then Johnny has a significant event and we think it came out of the blue. We “normalized” the changes.



The little failures

Corroded down to the width of a pencil eraser over an oval area about 10 inches long. A complete breach would have occurred within two months.



Maintenance personnel had regularly been finding rust particles “mysteriously clogging” air-conditioning and water filters. The air filters needed changing every 2 days for 2 years. The industry standard is 1/month. No one questioned the findings, the purchase of filters, etc.



Rust hole found in the reactor's carbon steel lid in March, 2002.



GM brings baby to ED for rash. MD doesn't recognize worrisome skin lesions.

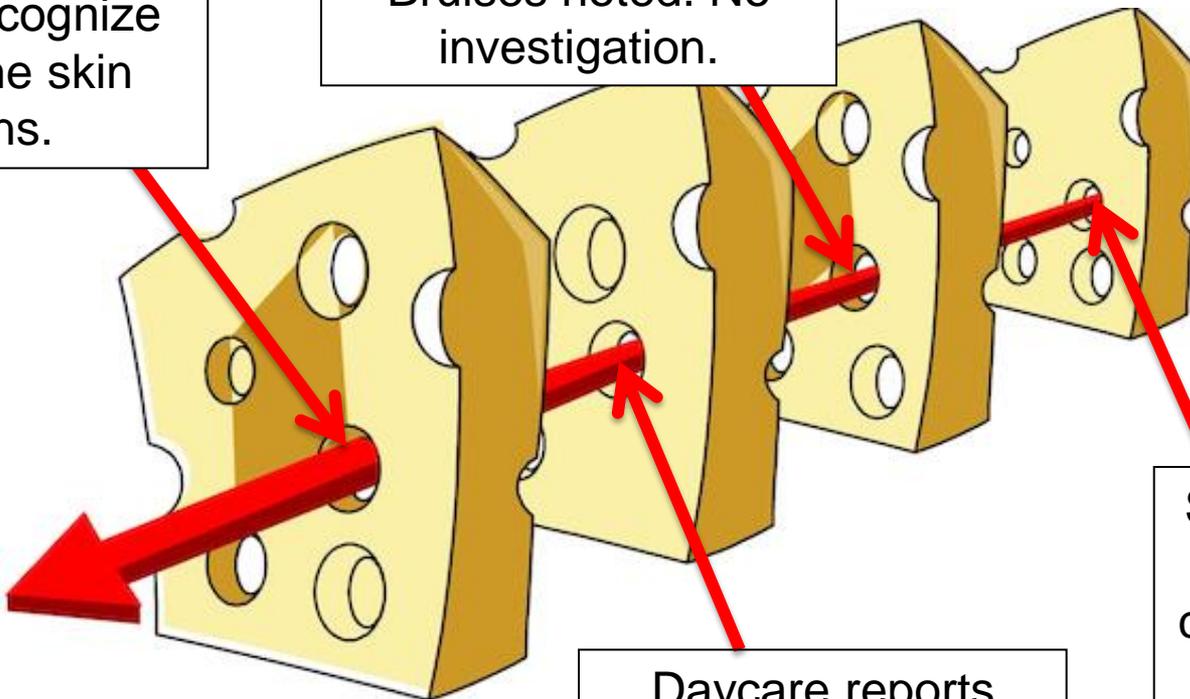
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Born
3/5/2014

Staff in newborn nursery concerned about biological father's behavior but remain silent

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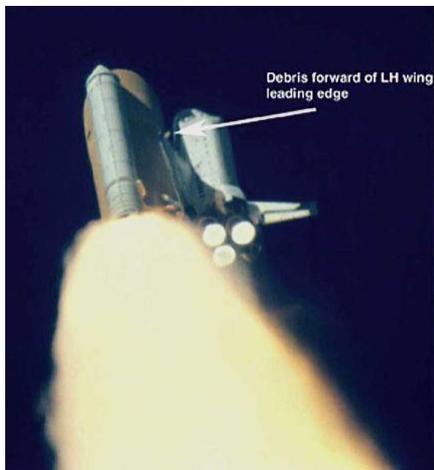


Died
8/1/2014



- <http://www.youtube.com/watch?v=tbSpAsJSZPc>





Additional pictures requested

Who not why asked by mission manager



People debating had no knowledge of how additional images could be obtained and worked with false assumptions.



Two possible sites of damage. Those who requested input recognized them as one and the same.

The expert said not to worry, exactly what mission managers wanted to hear.







Apply CUSP

Engineering System Design to Support Behavior Choices¹



10



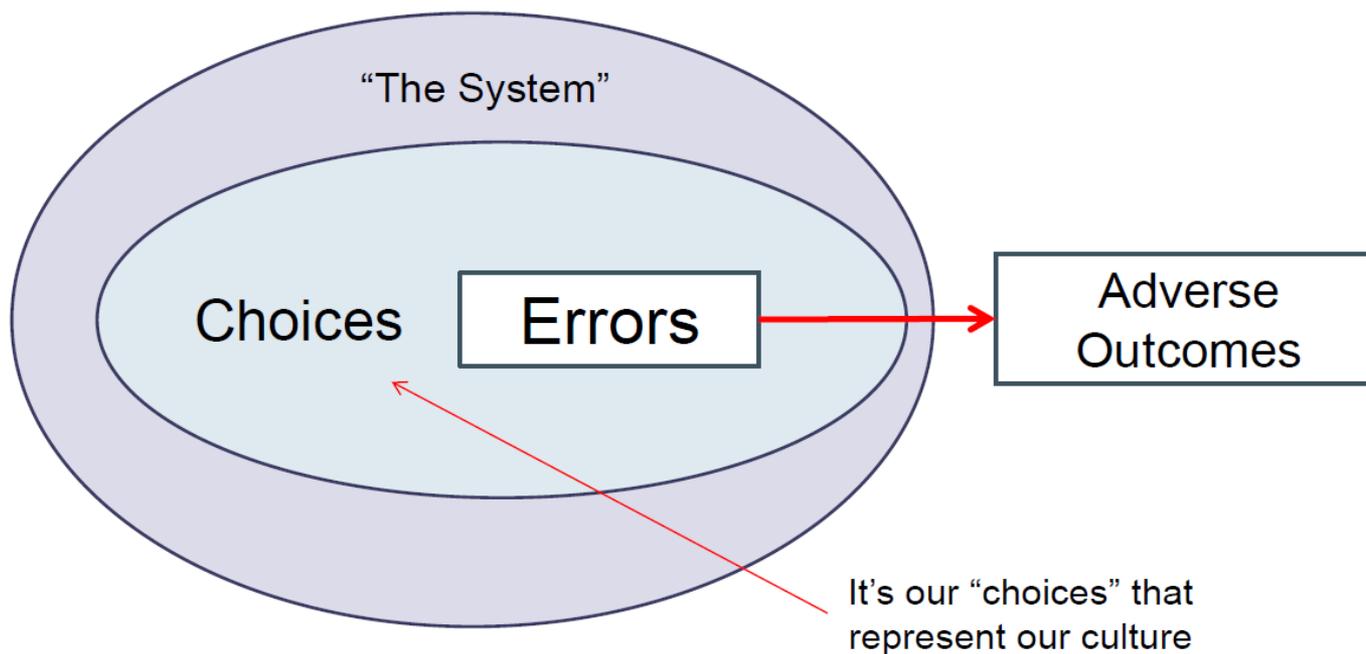
Culture is KEY

“the set of predominating attitudes and behavior that characterize a group or organization.”

Changing Culture
is a 5 – 10 yr
journey
depending on the
size of the group.



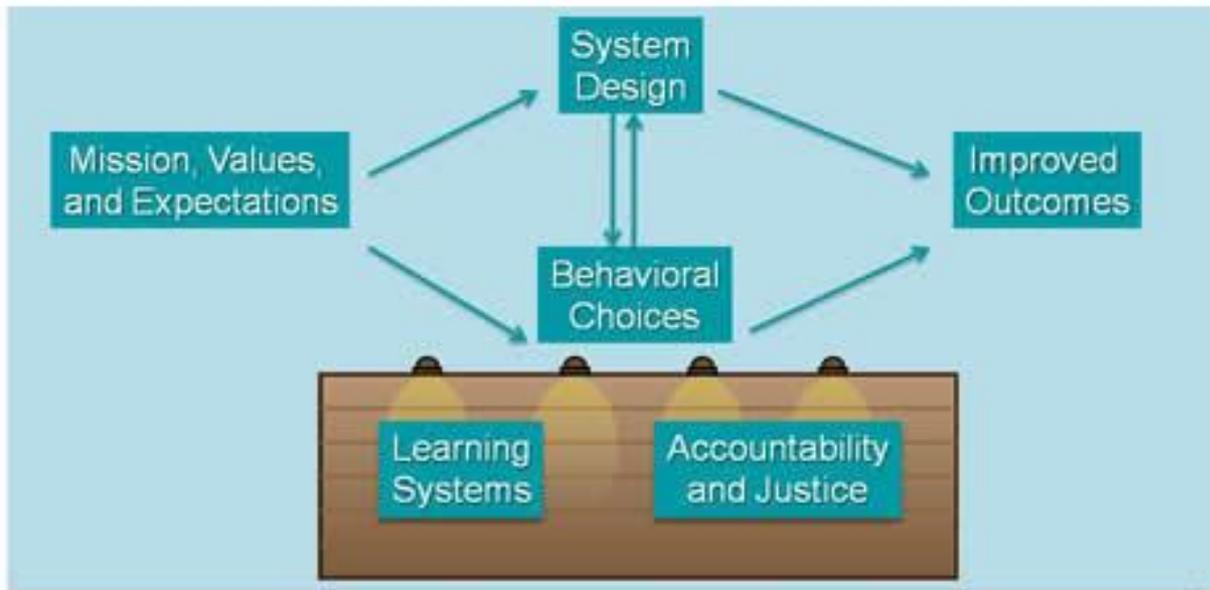
Differentiating Errors, Outcomes and Culture





Apply CUSP

Systems and Behaviors Work Together To Improve Outcomes¹



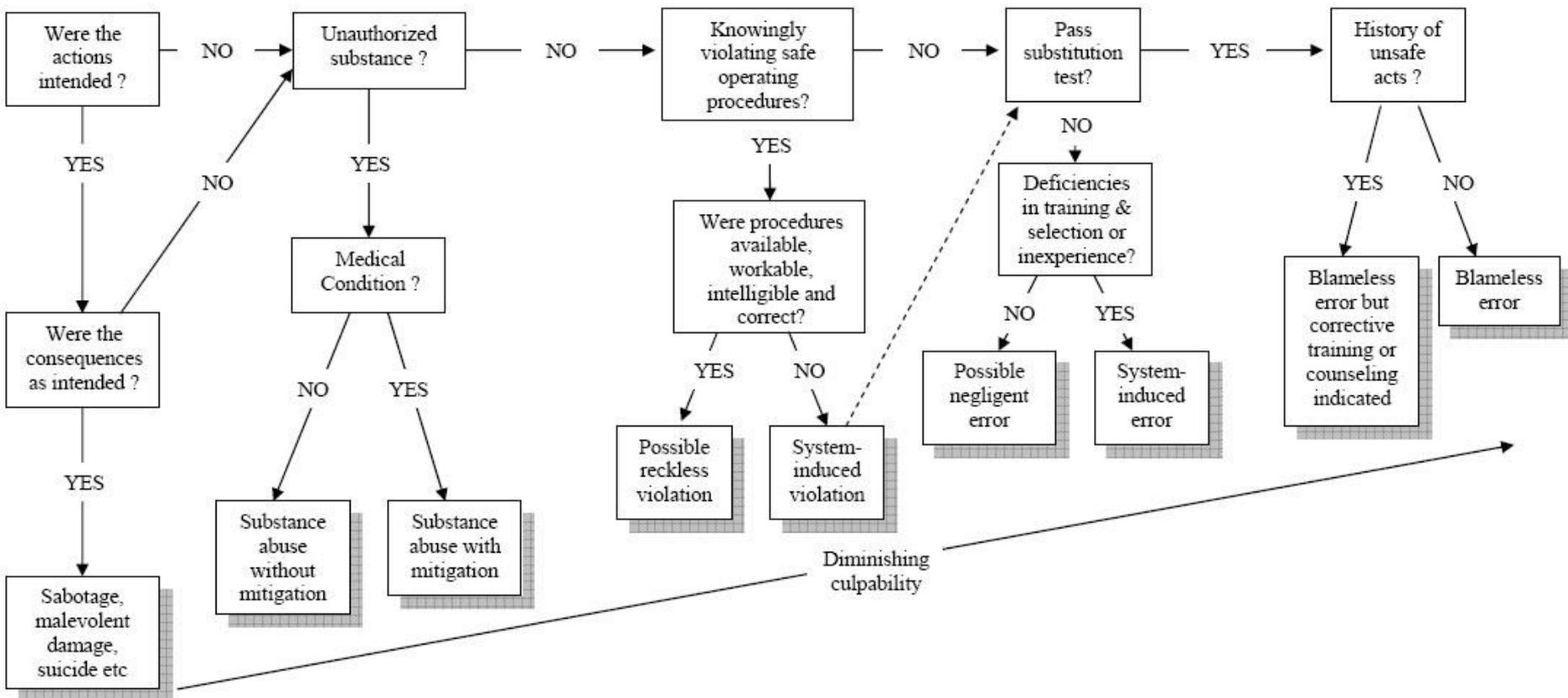
AHRQ CUSP



Practical Steps

- Train leaders in just culture
- Leaders talk the talk
 - Rounding to influence
 - 5:1
- Set behavior expectations
- Safety reporting system
- Communication
- Adopt a just culture algorithm to use in investigations



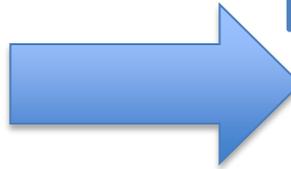


- Accountability – evolves and strengthens safety culture
- Blame – weakens safety culture, creates distrust within the team/office/hospital
- They are not synonymous

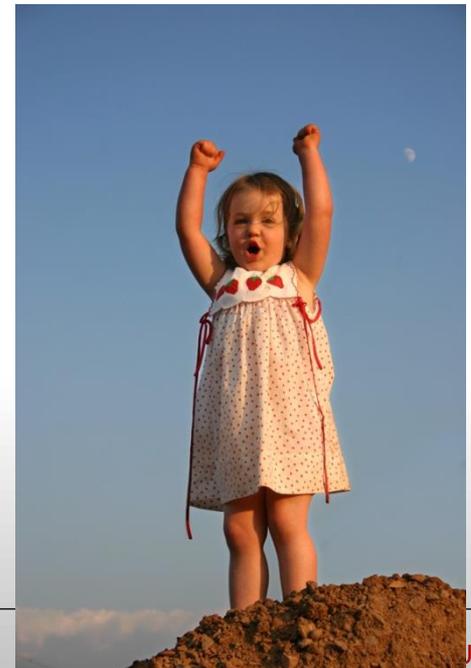




the POWER of 1 goal



GLOBAL AIM
Eradicate Harm
Maximize Outcomes



Reaching for Zero



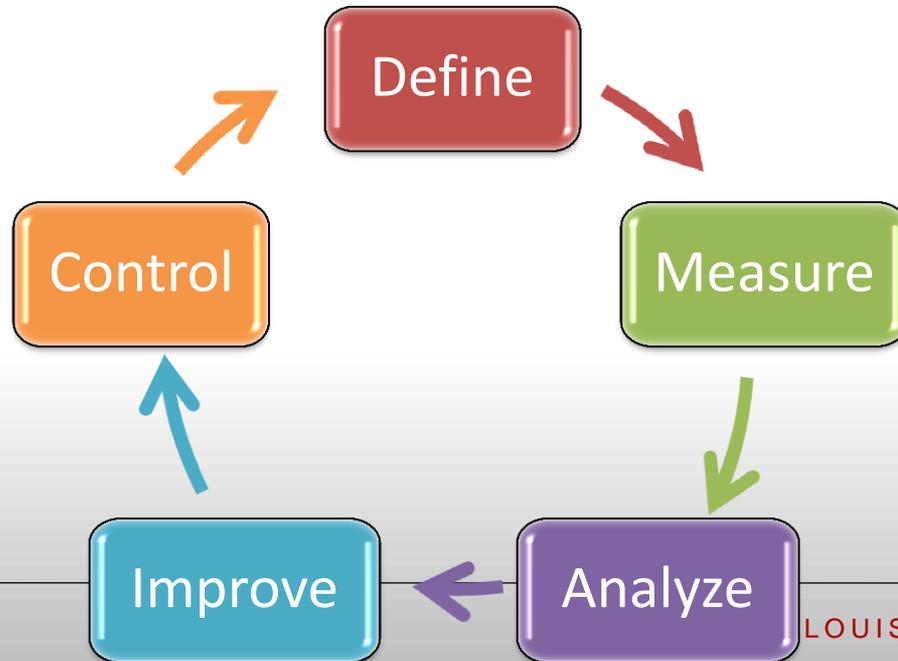
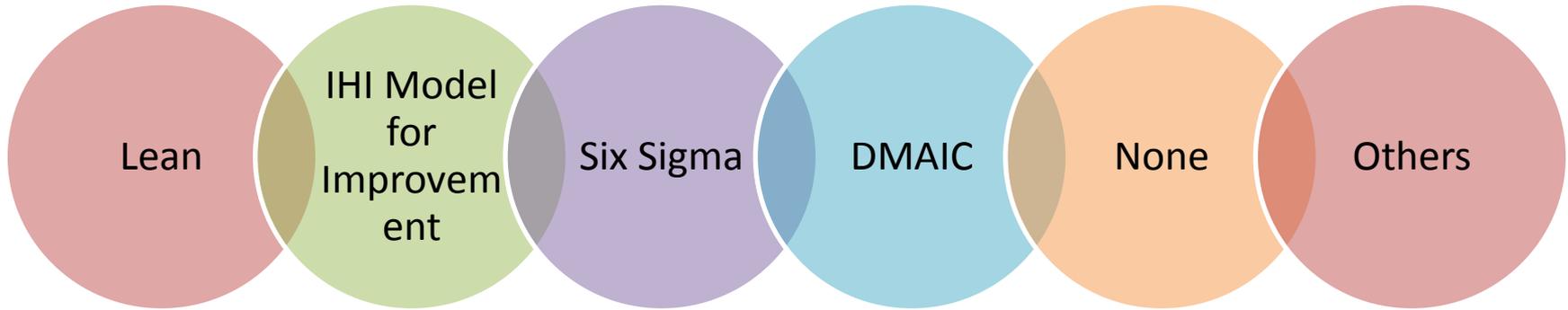
Be a ZERO HERO

- No one whacked now what?
- Investigating the event



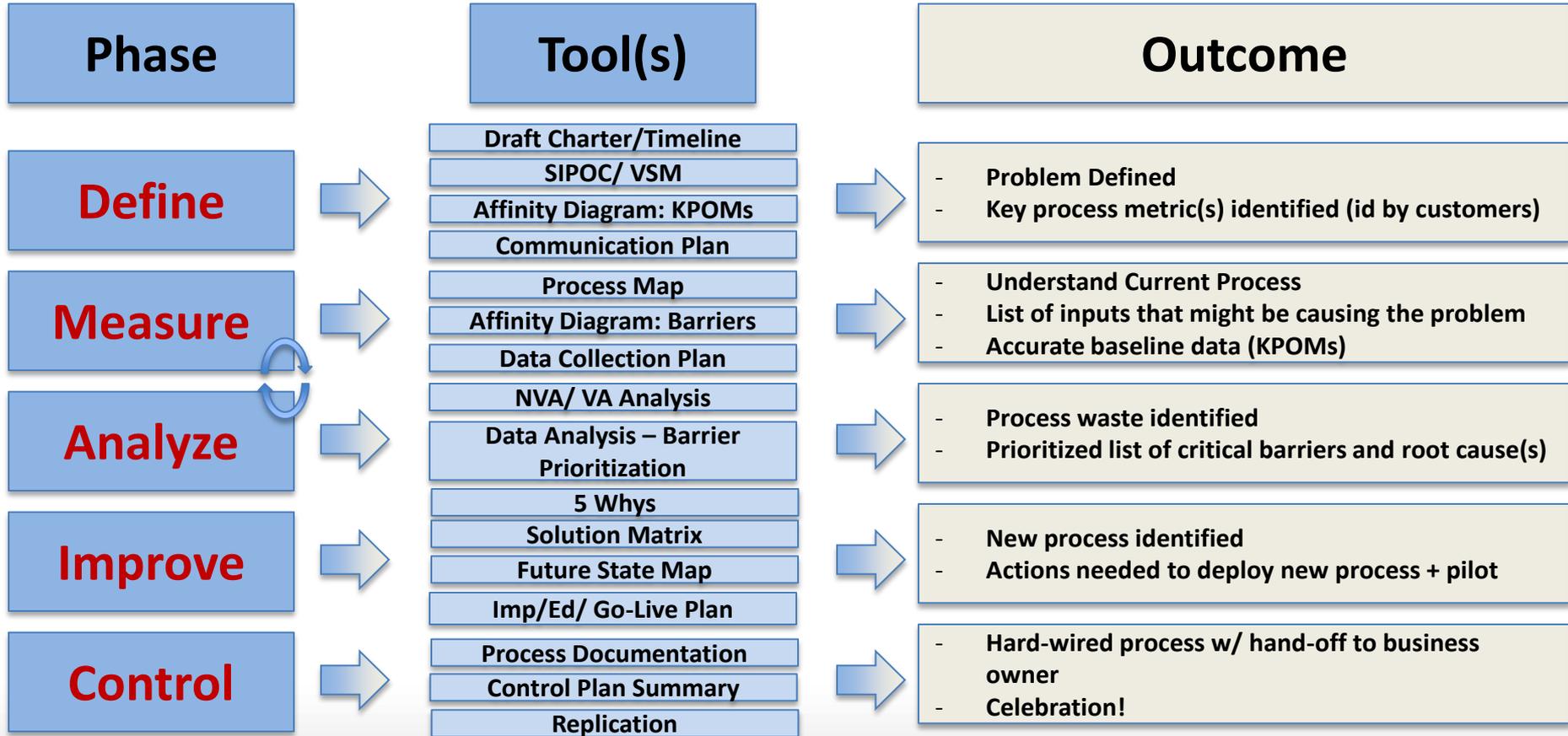


the POWER of 1 methodology





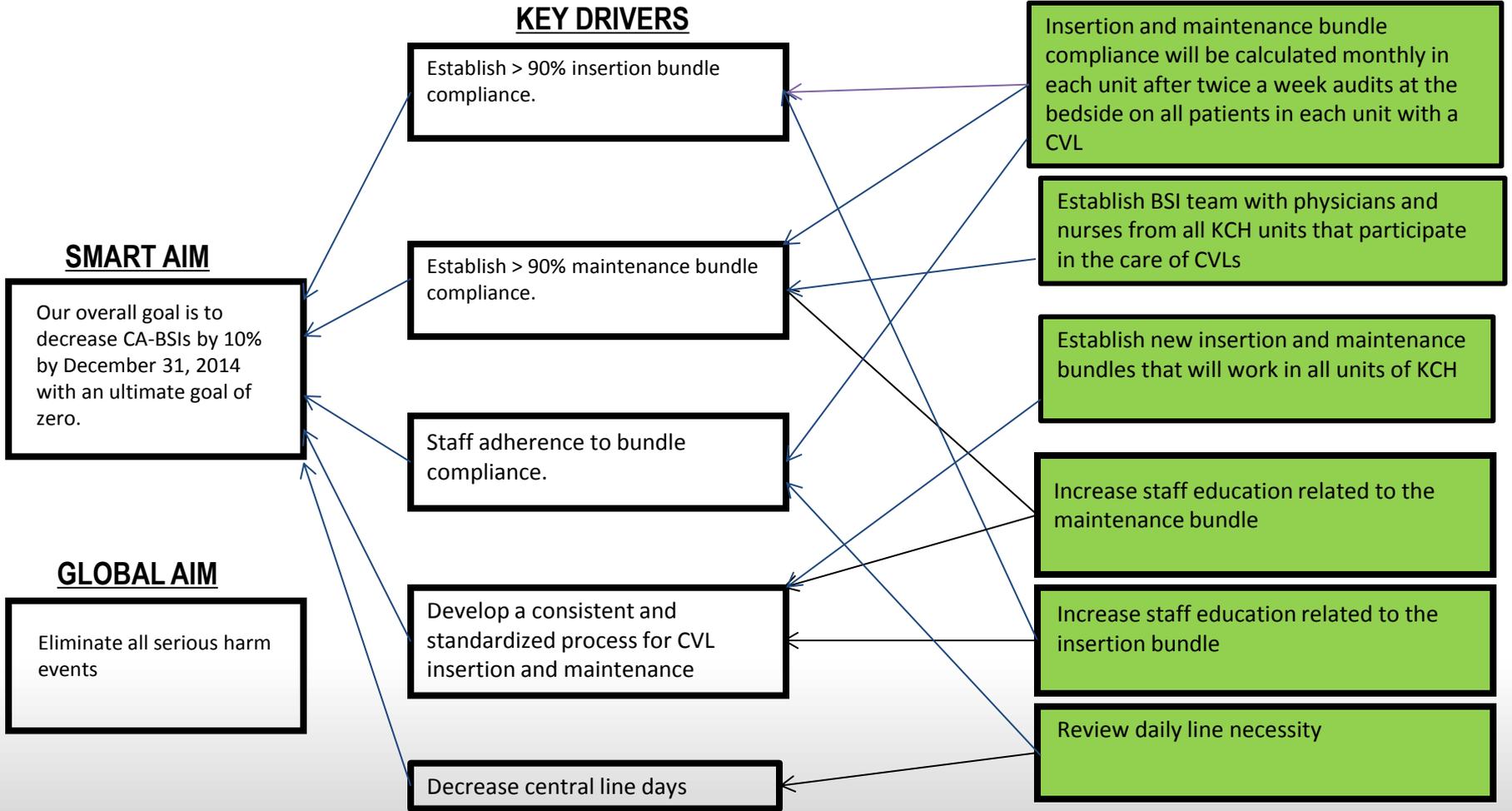
DMAIC





KEY DRIVER DIAGRAM

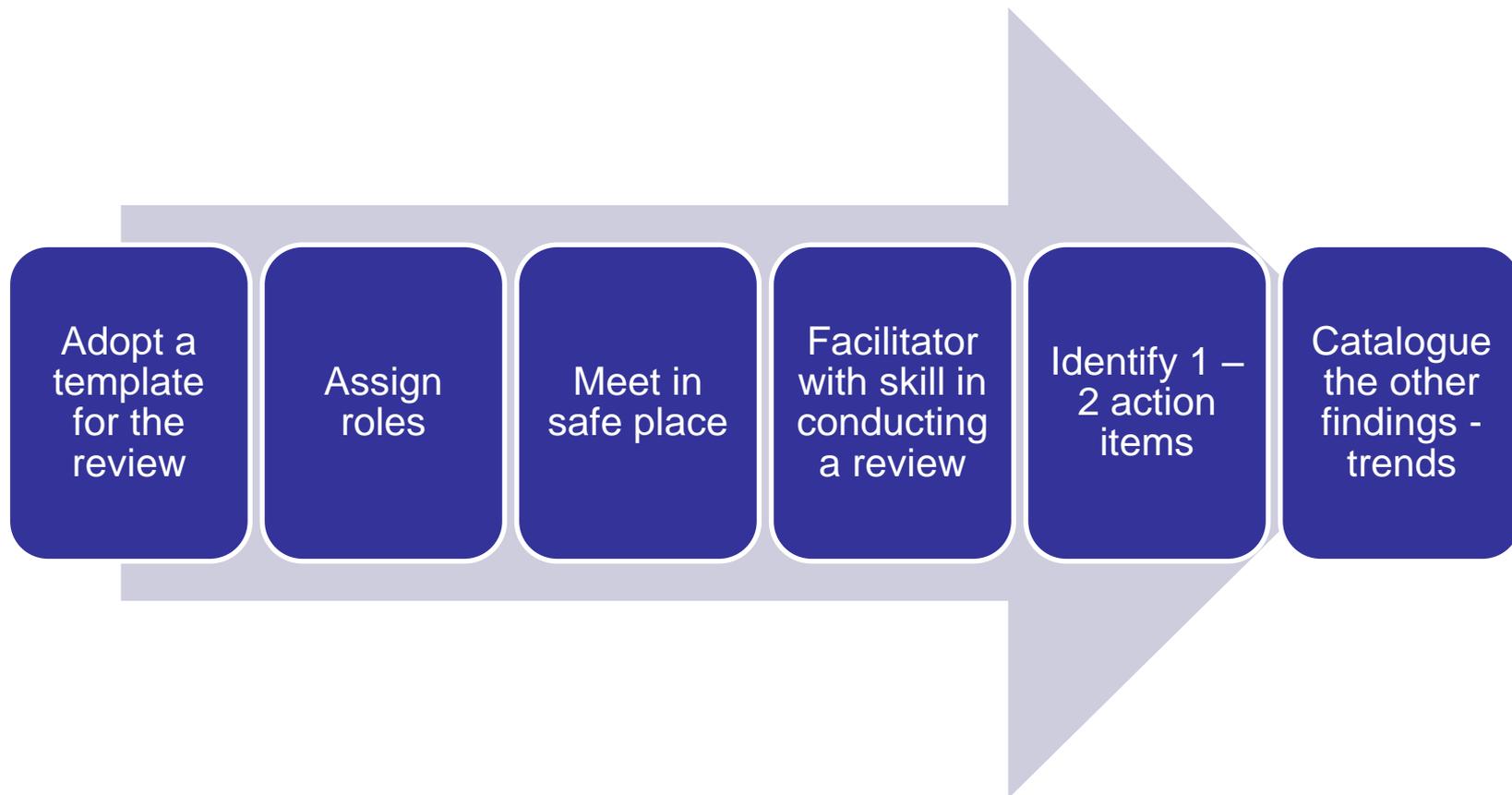
INTERVENTIONS



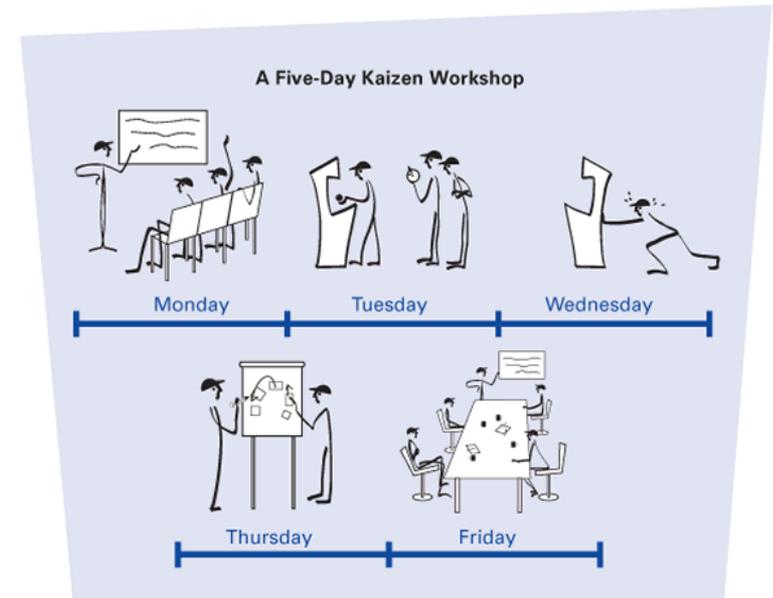
Key
 Dotted box = Placeholder for future additions
 Green shaded = what we're working on right now

Adapted from Cincinnati Children's Hospital Medical Center.

Event Review



Perceptions of the unexpected are fleeting. When people are interrupted, they tend to be candid about what happened for a short period of time and then they get their stories straight in ways that justify their actions and protect their reputations. And when official stories get straightened out, learning stops.



Leemers — a gut feeling that something isn't right



A SHERLOCK

Event happens

- ANM, charge, relief charge notified or already aware
- SHERLOCK template obtained and ANM (designee) debriefs with those involved in event as soon after event as possible

Preparation for SHERLOCK

- A SHERLOCK MD takes the event and completes rest of the template
- Formal SHERLOCK scheduled (24 – 72 hours post event)

SHERLOCK

- Team members plus, CNO, Medical Director, unit managers and staff, attendings and residents involved invited
- Use Flip Charts with CUSP headings to discuss the review and identify apparent causes
- Identify 1 – 2 action items
- Add other apparent causes/contributors to database to identify common causes.

CUSP Categories

- Patient Characteristics
- Task Factors
- Provider
- Team Factors
- Work Environment
- Departmental Factors
- Hospital
- Institutional



The Comprehensive Unit-based Safety Program (CUSP) toolkit includes training tools to make care safer by improving the foundation of how your physicians, nurses, and other clinical team members work together. It builds the capacity to address safety issues by combining clinical best practices and the science of safety.

Patient and
Family
Factors

Task

Provider

Contributing

Team

Training and
Education

Information
Tech

Local
Environment

Institutional
Environment



Failure to Rescue

Patient and Family <ul style="list-style-type: none">• Age	Task <ul style="list-style-type: none">• Manual BP cuff	Staff <ul style="list-style-type: none">• New RN• Junior resident	Team <ul style="list-style-type: none">• Good communication• IV team busy• Wrong page # for resident• Narrowed dx too quickly
Training and Ed <ul style="list-style-type: none">• Recog. of early shock• Recog of purpura and petechiae	IT/Tech <ul style="list-style-type: none">• Default times for orders• Pharmacy default schedules• Finding what to order	Local Environment <ul style="list-style-type: none">• Jr resident-multiple duties• Sr resident-competing priorities• Lack of PICU bed	Institutional Environment <ul style="list-style-type: none">• Not at downtown ED• Admission criteria to the ICU



Commitment to Resilience



Life isn't about
waiting for the
storm to pass...

...it's learning to
dance in the rain

- No policy or procedure or group can anticipate all the situations and conditions that shape people's work
 - Able to sense the unexpected in a stable manner and yet deal with the unexpected in a variable manner



Community resilience requires building neighbor to neighbor reliance and organizational connection

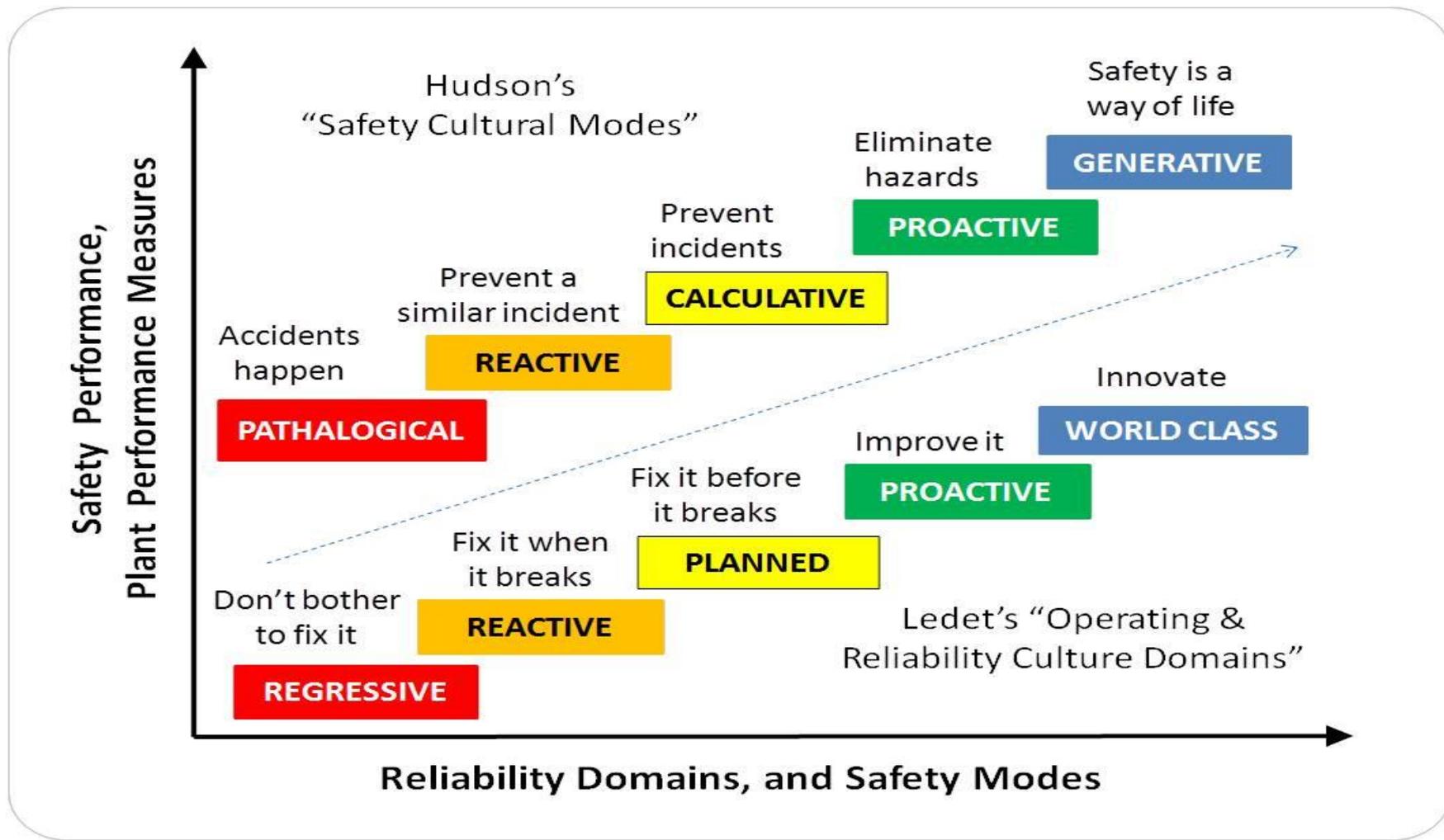


- Every night 20-25 aircraft in the domestic system start their flights toward Memphis only 60% loaded. If notified of “at risk” cargo, the plane is diverted to pick up the additional cargo. If diverting the aircraft puts more customers at risk, then diversion doesn’t happen.
- FedEx expects that some surprise(s) will occur every night
- Use foresight, creativity, conservative decisions, and common sense in the management

When a serious harm event has occurred in your PICU, how many times is a policy or procedure created or revised?

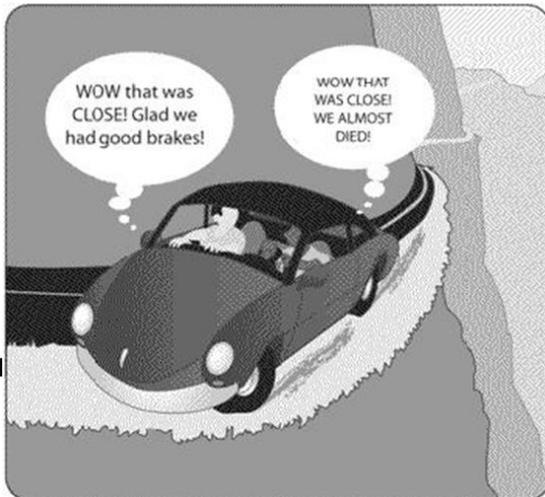
HROs do not create more elaborate defenses but more elaborate response capabilities.

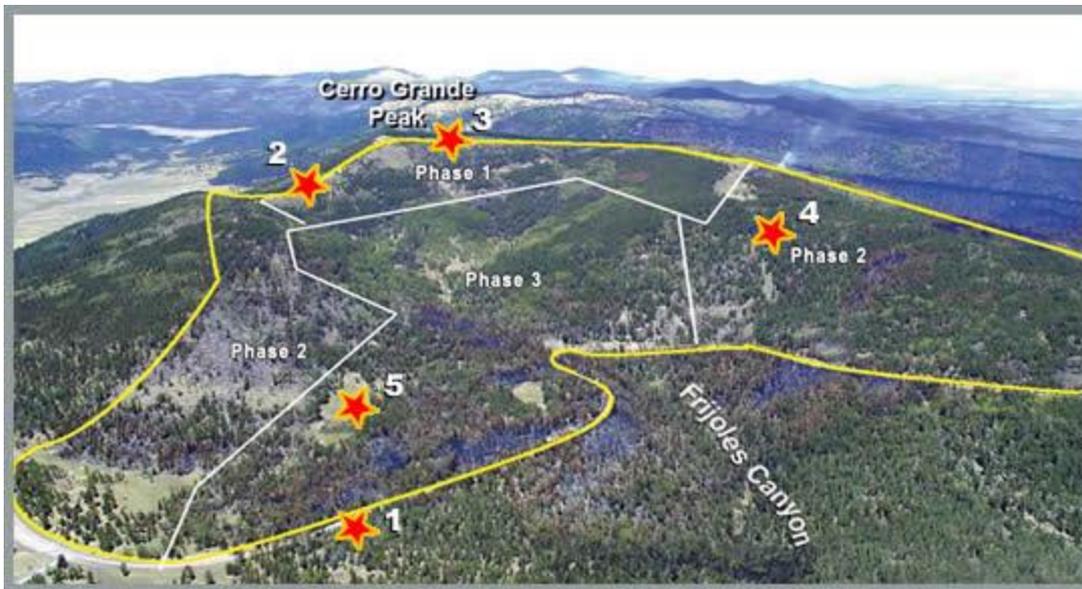
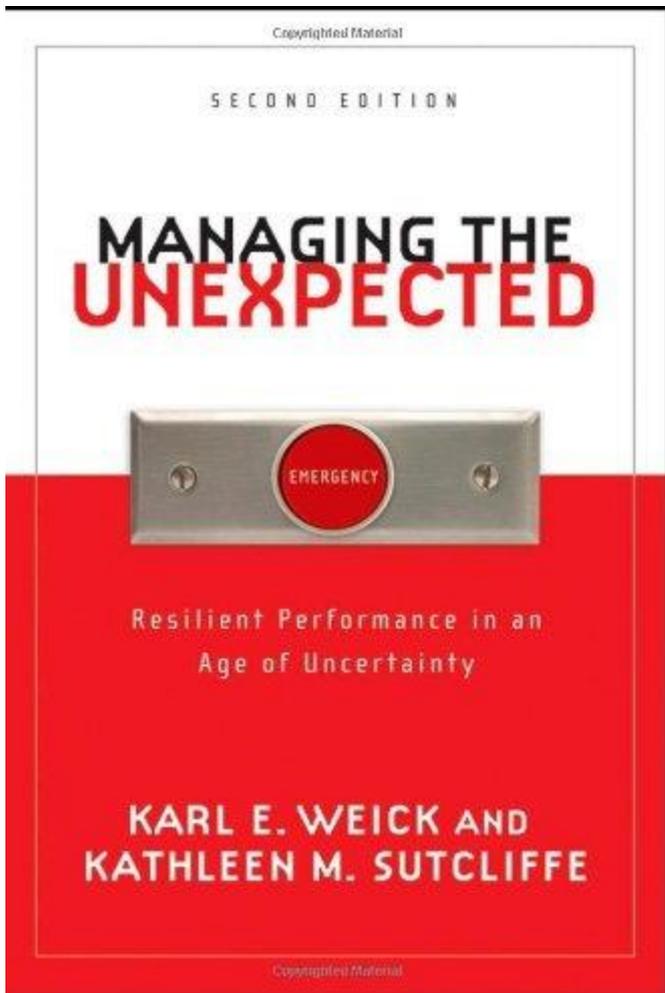
Mindfulness



Mindfulness

- “a rich awareness of discriminatory detail”
 - Aware of the ways details differ
 - Aware of deviations from their expectations
 - Have a big picture of the moment (similar to situational awareness)
 - Ongoing scrutiny of existing expectations, continuous refinement and differentiation of expectations based on newer experiences





From the Cerro Grande Wildland Fire

To

Your ****



So what are the next steps?

GM brings baby to ED for rash. MD doesn't recognize worrisome skin lesions.

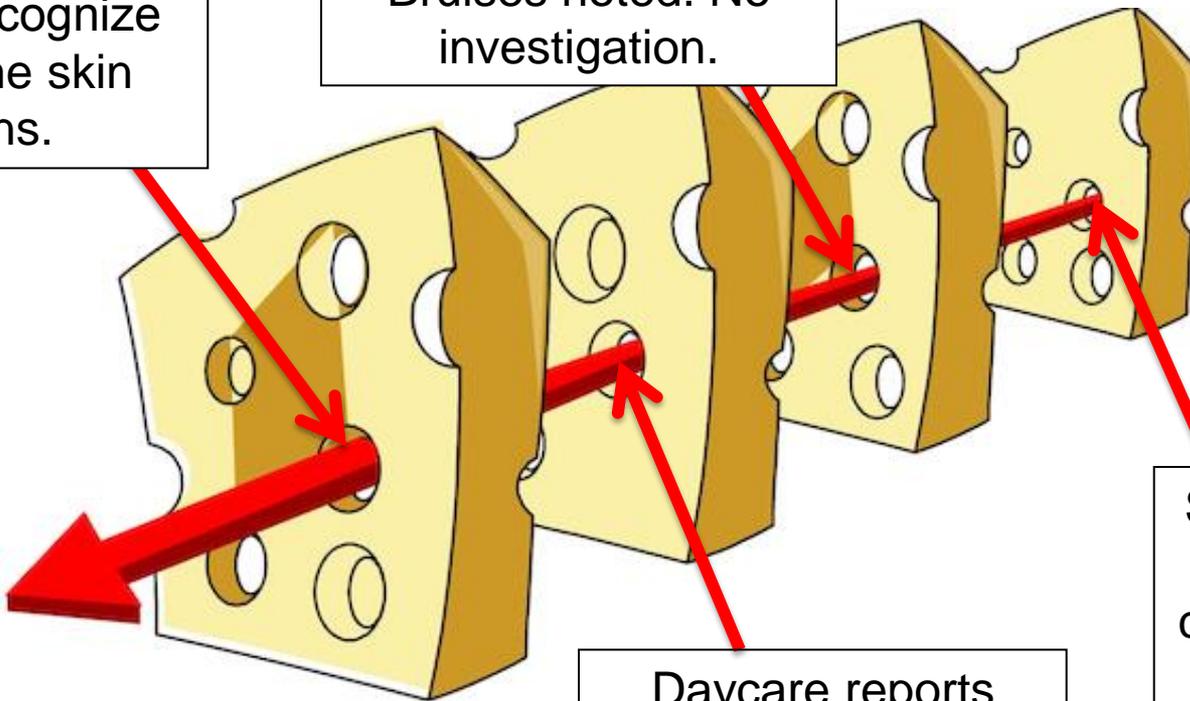
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Daycare reports concern. CPS worker investigates. Closes case.



Died
8/1/2014



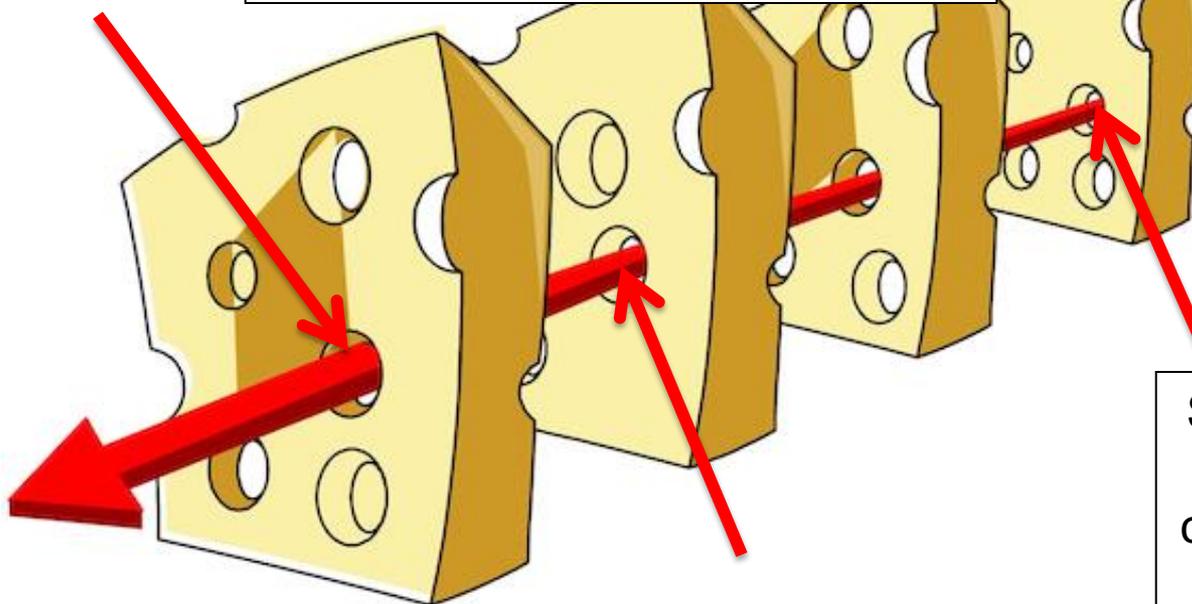
So what are the next steps?

- New mother education
- Contracts
- Foster OK to speak up
- Ask about domestic violence



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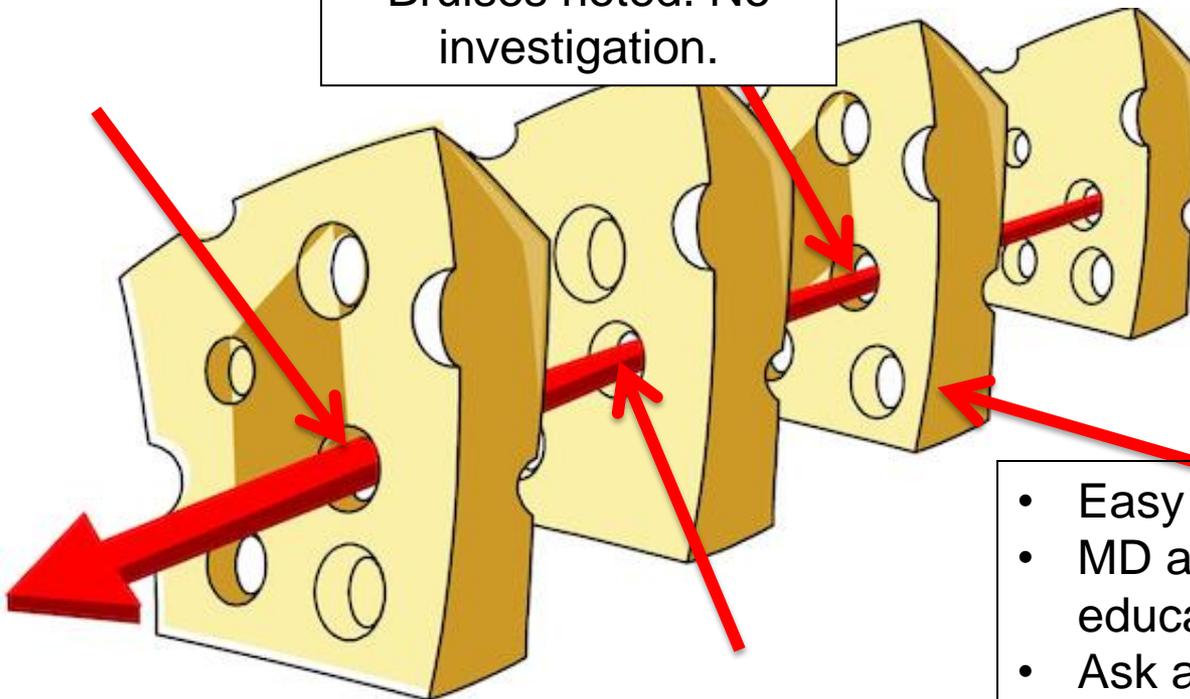


So what are the next steps?

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Born
3/5/2014



- Easy to report
- MD and RN education
- Ask about domestic violence
- Community support programs



Died
8/1/2014

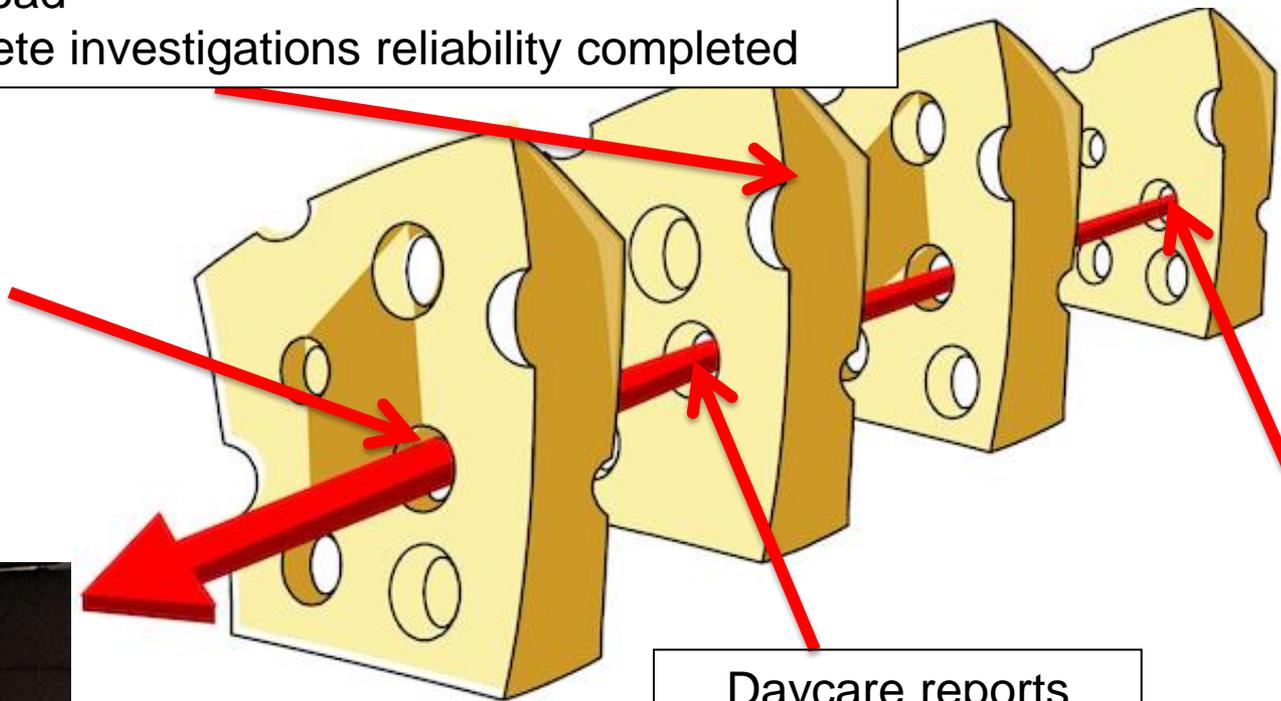


So what are the next steps?

- Local reviews
- Ability to act on instinct
- Case load
- Complete investigations reliability completed



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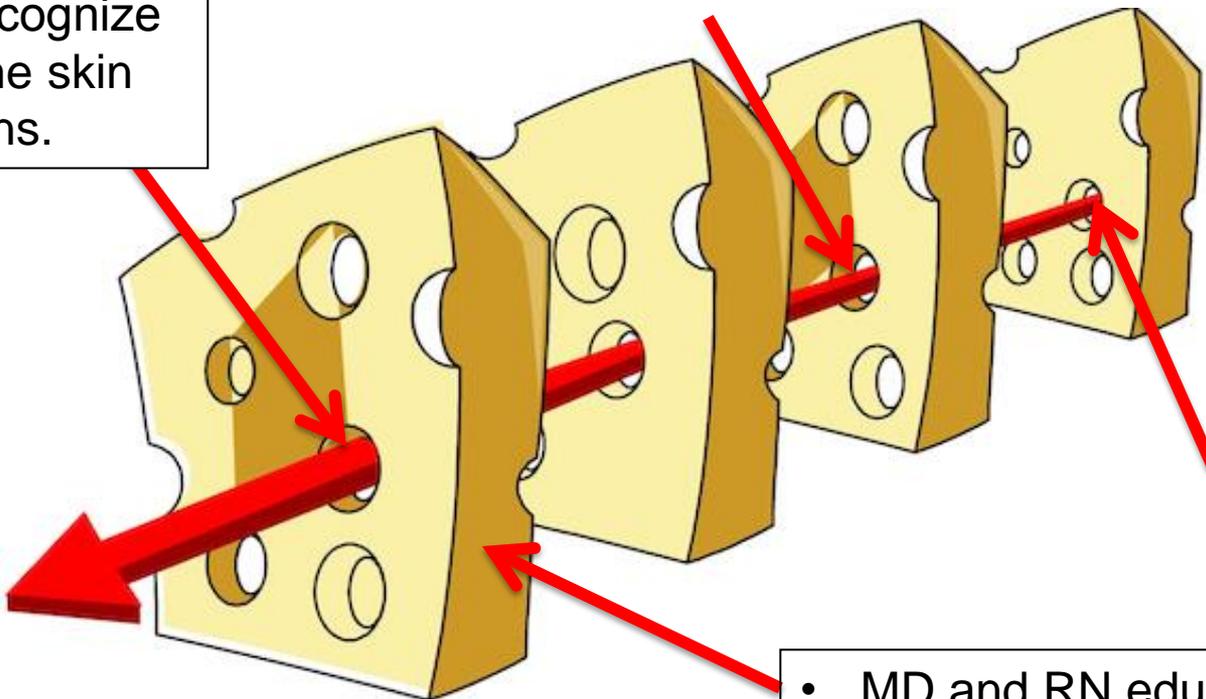


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- MD and RN education
- Community education about reporting
- Ask about domestic violence

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