Multi-Dimensional Hazard Analysis

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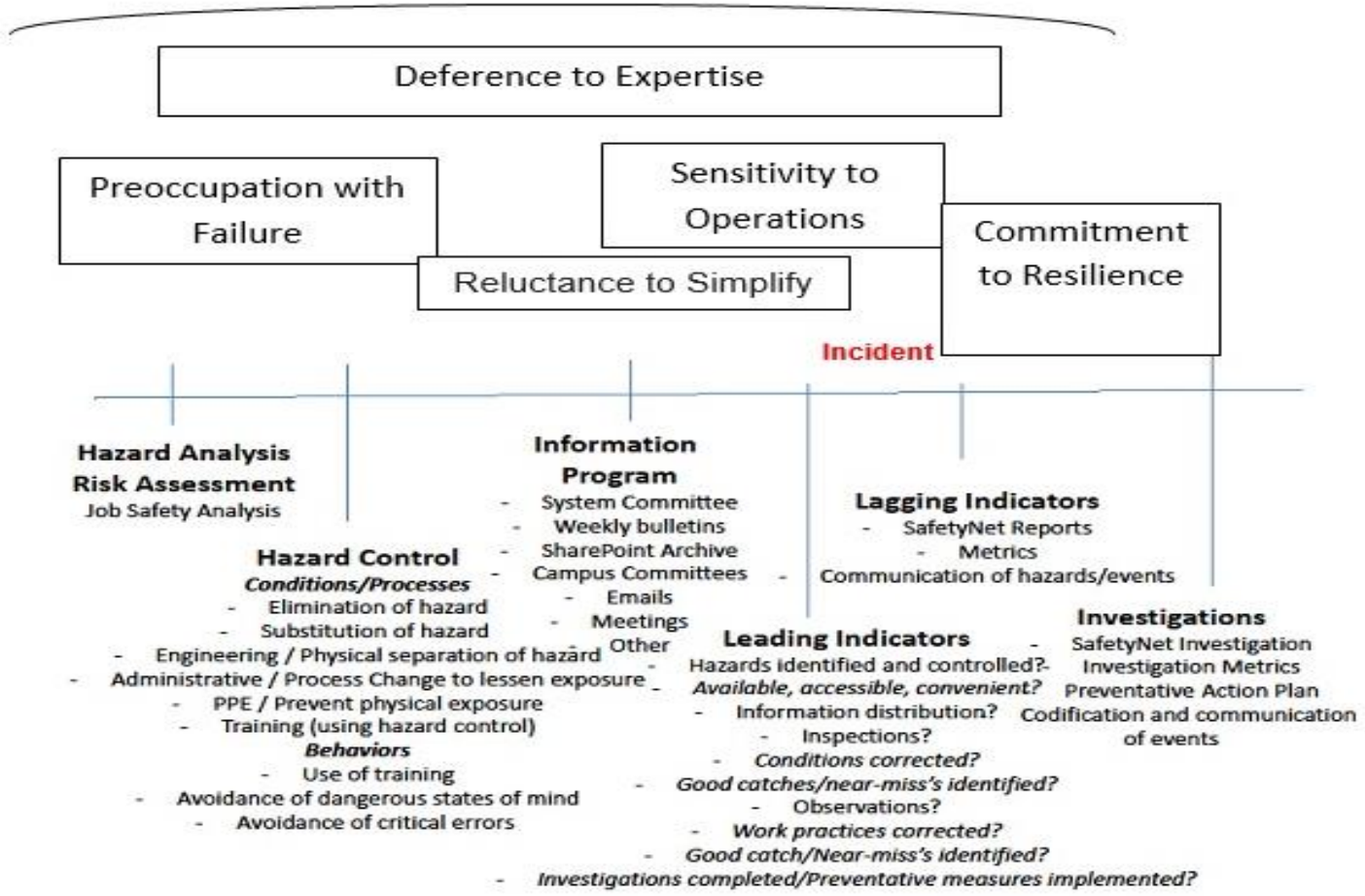
Overview

* ‘High Reliability’
* Multi-Dimensional Hazard Analysis
* Situational Awareness
* Emerging Threats

High Reliability

Program Development



Multi-Dimensional Hazard Analysis

Risk Management

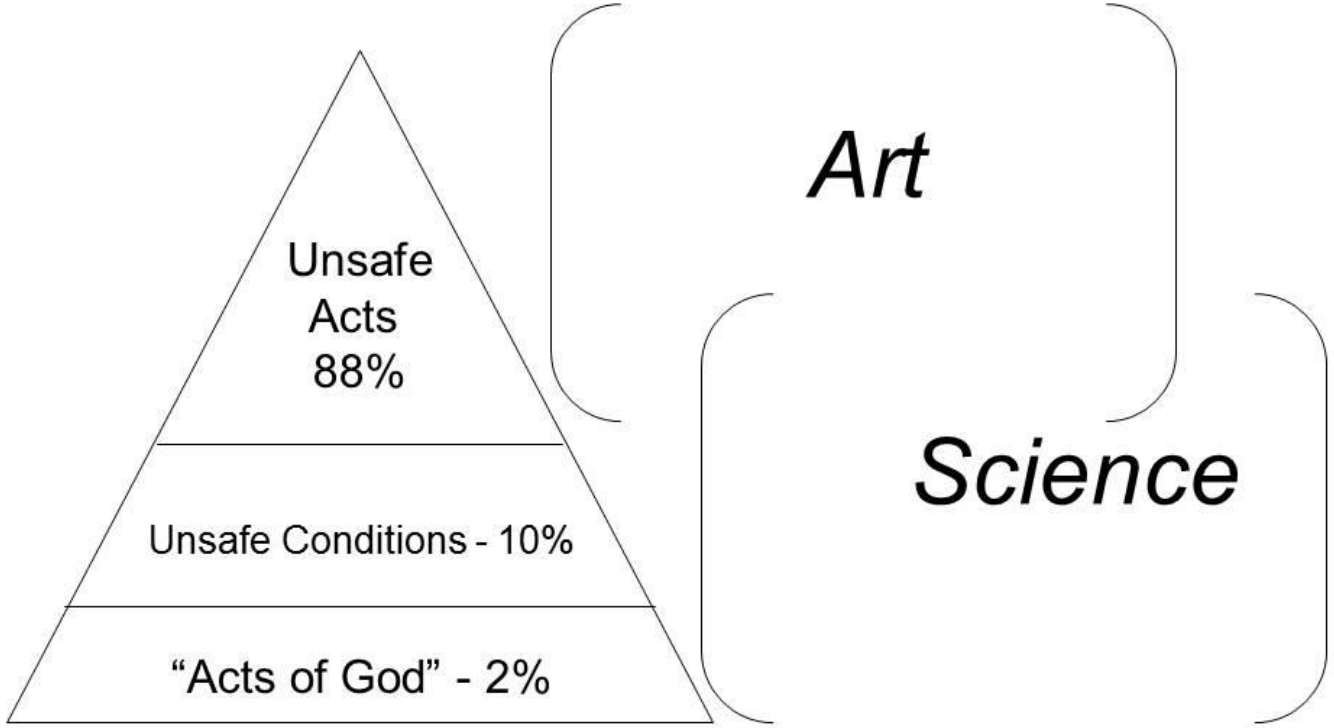
- Risks
  - Strategic Risk
  - Operational Risk
  - External Risk
  - Hazard Risk
- Risk Management / Treatment
  - Risk Avoidance
  - Risk Acceptance
  - Risk Transfer
  - Risk Control

Types of Hazards

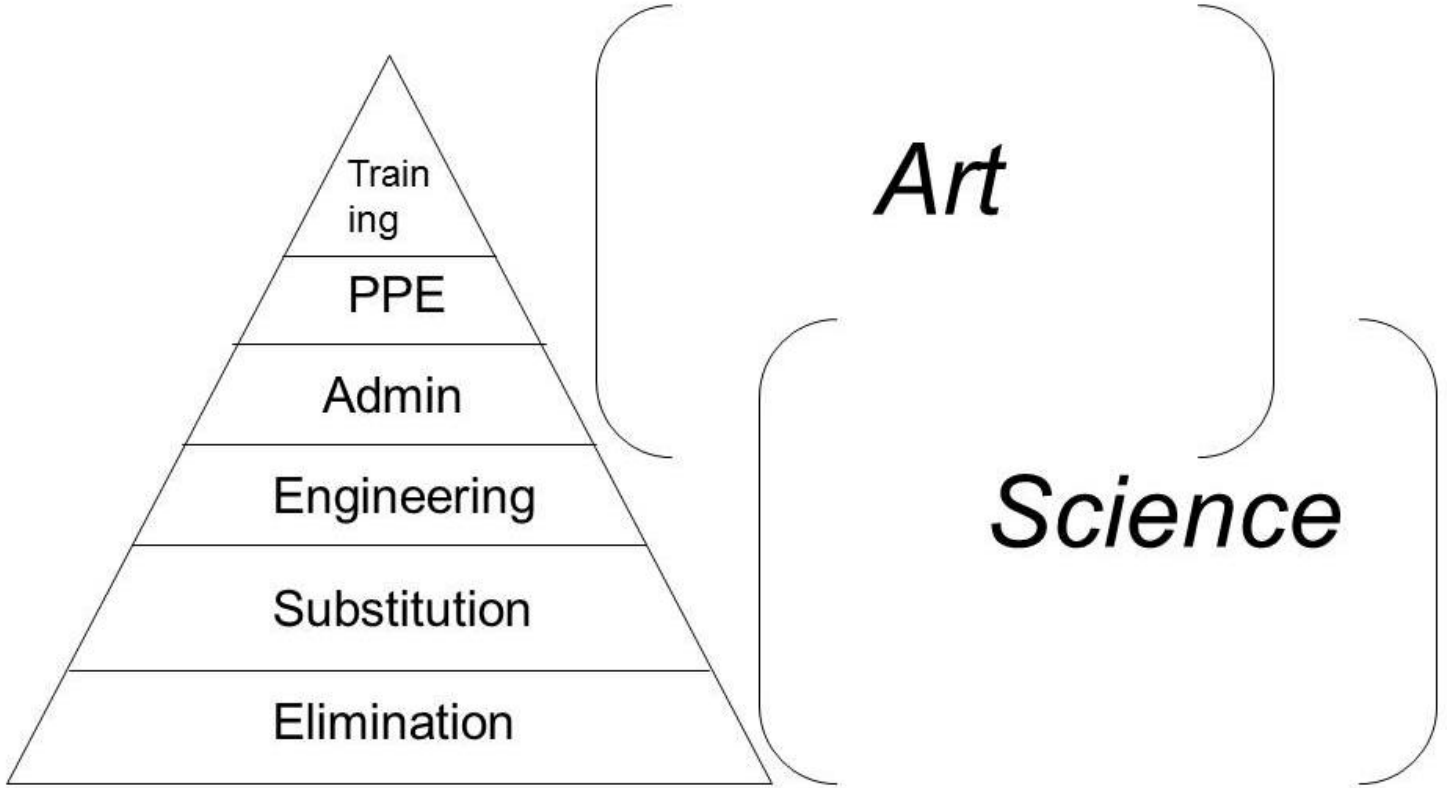
* Conditions / Environmental
* Equipment / Materials
* Work Practices
* Patients / Visitors
* Weather
* External Events

Stagnant vs. Dynamic Hazards

Risk Control - Types of Hazards



Hazard Control



Types of Hazard Controls

* Regulations
* Policies
* Hierarchy of Controls
* Situational Awareness / Training / Coaching / Exercises / Conditioning

Regulations and Standards

* 29 CFR 1910

* 29 CFR 1926

* EPA / Environmental Protection Laws (RCRA, CAA, CWA, EPCRA and more)

* TJC

* Fire Code

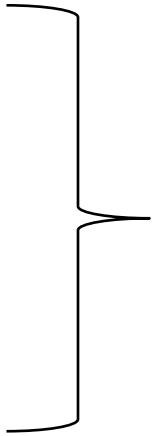
* Life Safety Code

* Local Policies (Driving, Ergonomics, Workplace Violence Prevention, Drug Use….)

And more….

Hierarchy of Controls

* Elimination
* Substitution
* Engineering
* Administration
* Personal Protective Equipment



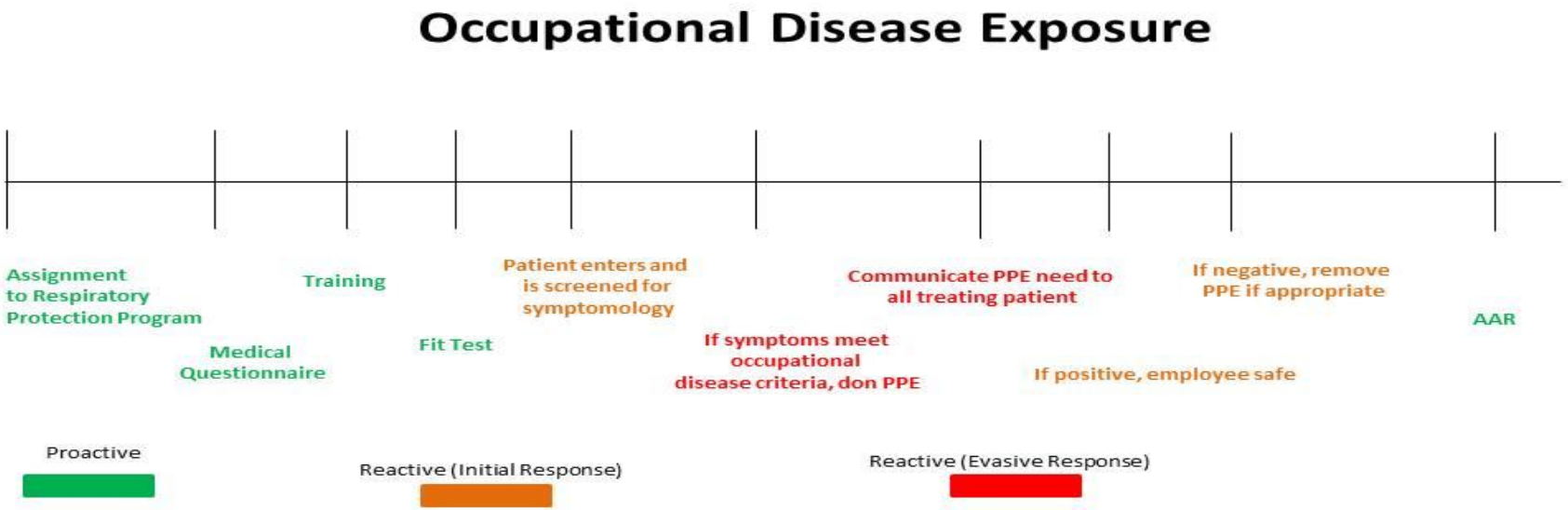
Training

But…..

What about all of these new threats that don’t fit into a regulation or even a clear version of the Hierarchy?

Emerging Threats

Hazard Controls – Biohazard



Biohazard

Written Program / Plan

PPE Assessment

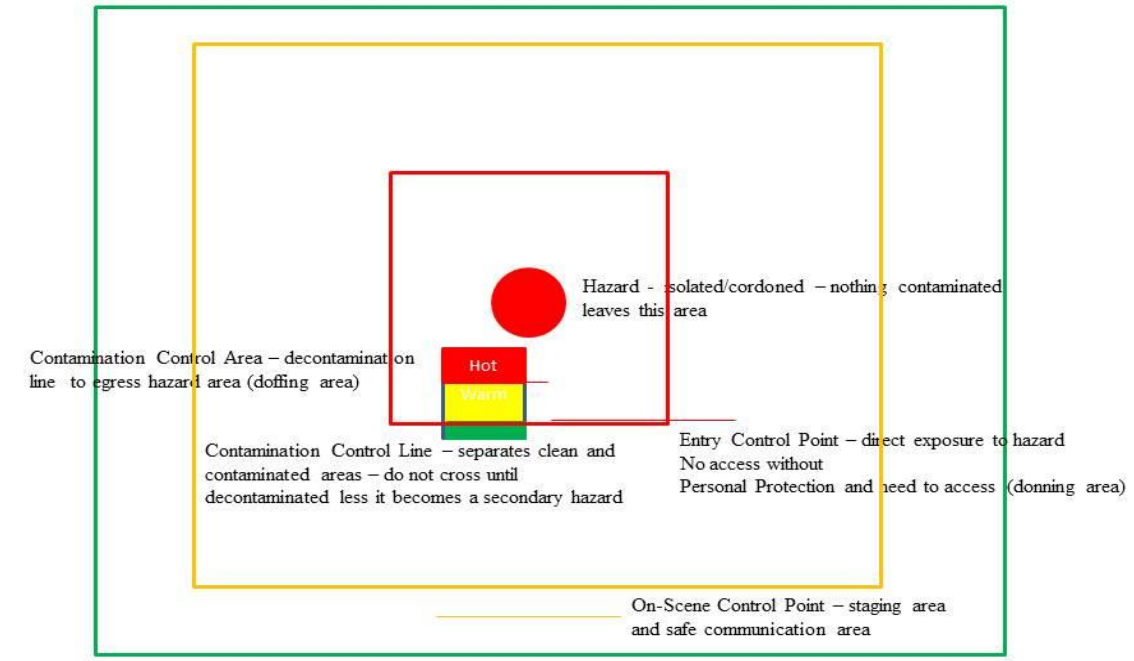
Respiratory Protection Program

Training

HAZWOPER

But what if the hazard isn’t identified?

CBRNE



1.Identify indicators of hazard
2. Personal protection / Secure hazard
3. Decontaminate anything contaminated prior to indicator identification
4. ICS allows for tactical response to hazard while supported by structure out of tactical area
5. Contamination Control and Contamination Avoidance - comprehensive

CBRNE / HAZMAT

Written Program

Safety Data Sheets

Emergency Action Plan

PPE Assessment

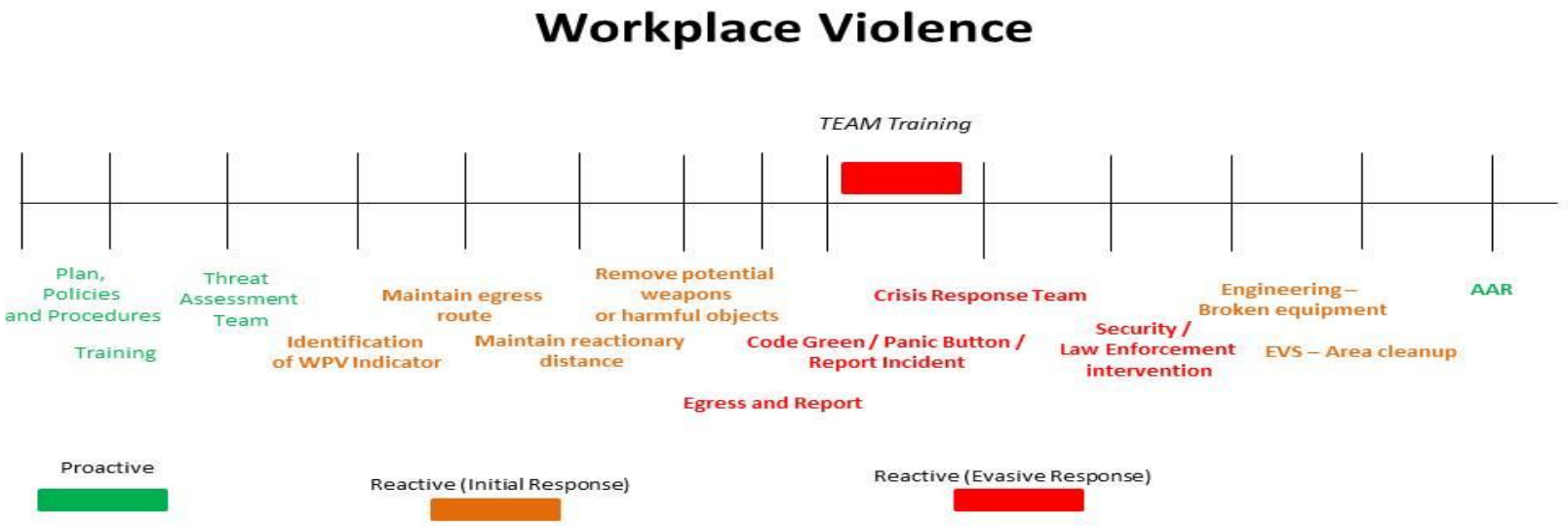
Respiratory Protection Program

Spill Containment

HAZWOPER

But what if the hazard is not identified?

Hazard Controls – Workplace Violence



Workplace Violence

Zero Tolerance Policy

Panic Buttons

Response Procedure

Training

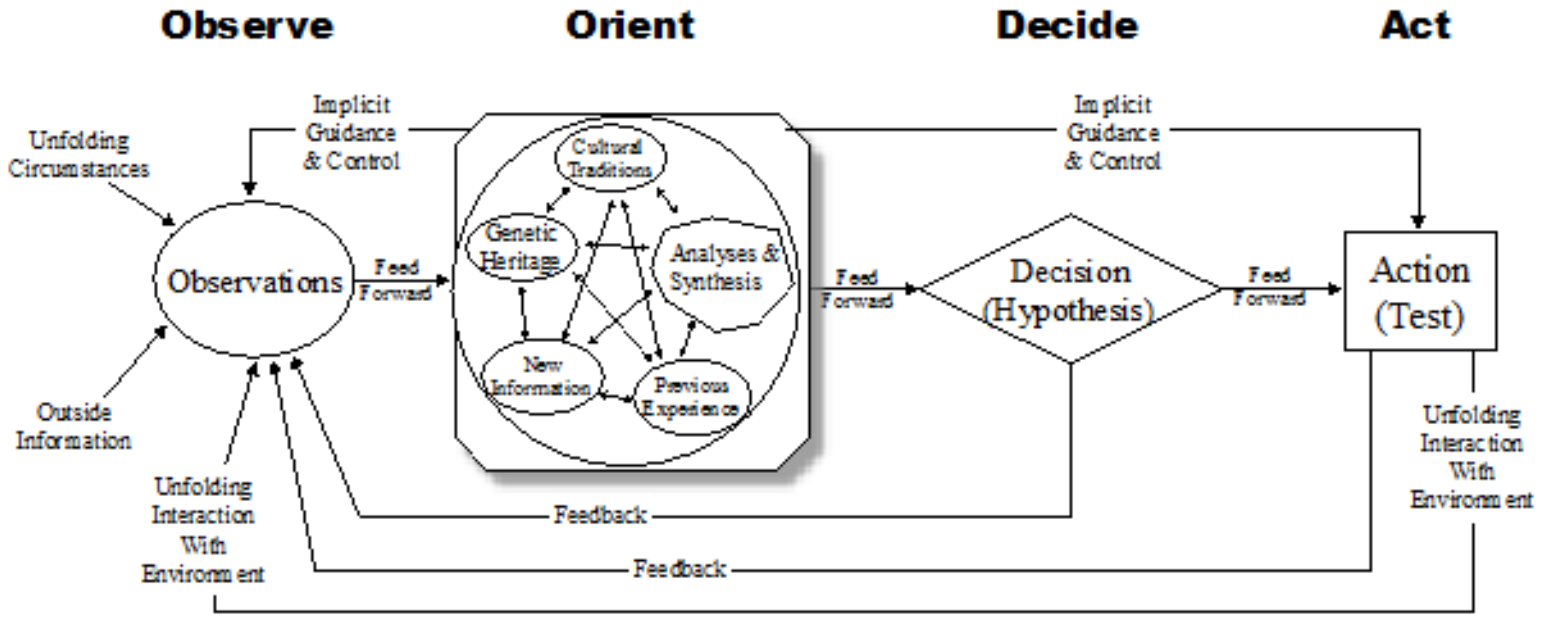
Reporting Structure

But what if threats aren’t identified?

OODA Loop Theory

- Allows for the individual or organization to proactively act against aggressor
- Situational awareness in dynamic environments through:
  - Observation
  - Orientation
  - Decision-making
  - Action

(Maccuish, 2012)



Note how orientation shapes observation, shapes decision, shapes action, and in turn is shaped by the feedback and other phenomena coming into our sensing or observing window.

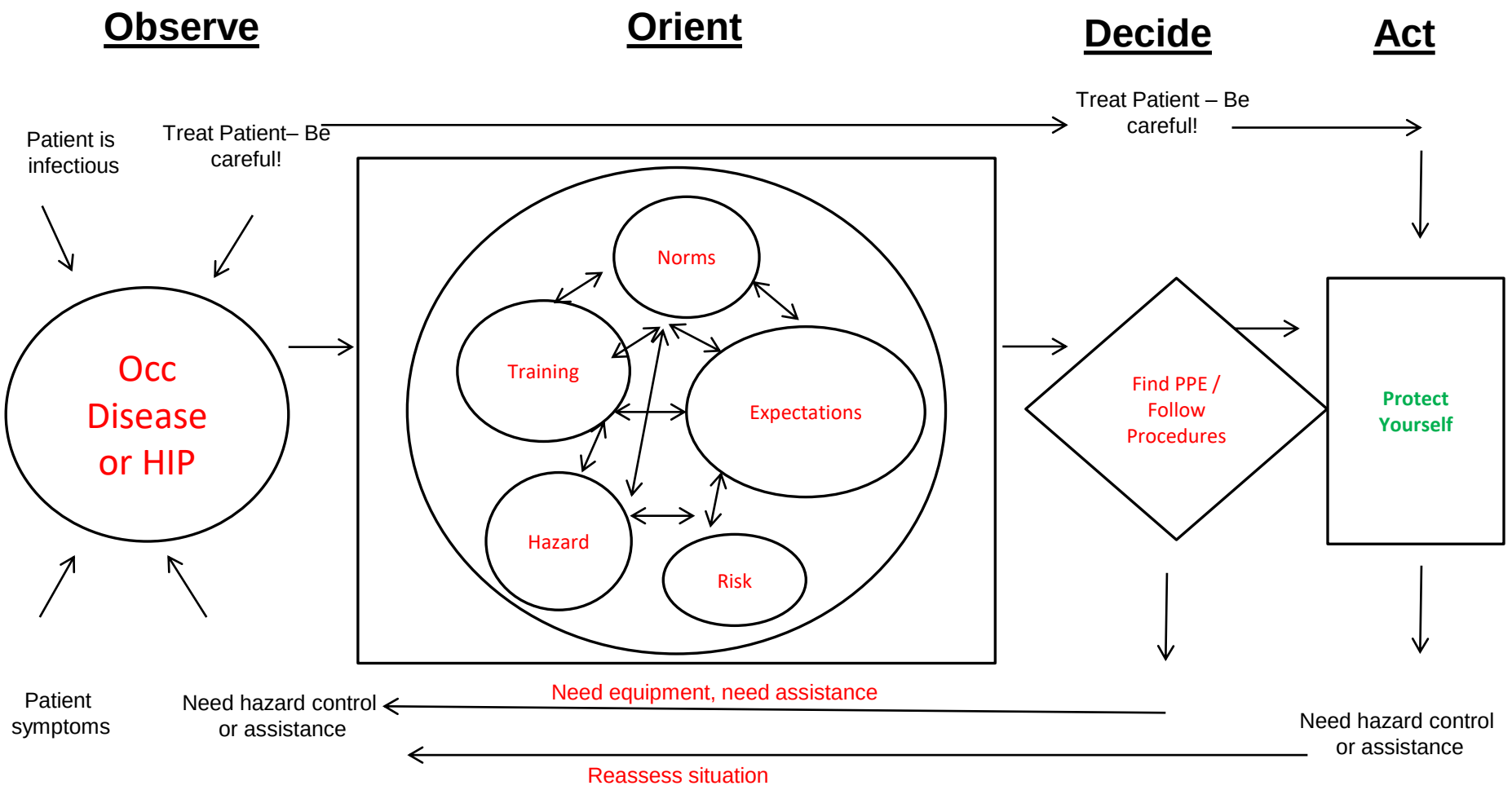
Also note how the entire "loop" (not just orientation) is an ongoing many-sided implicit cross-referencing process of projection, empathy, correlation, and rejection.

From "The Essence of Winning and Losing," John R. Boyd, January 1996.

Defense and the National Interest, http://www.d-n-i.net, 2006

August 2006

OODA Loop Applied – Occ Disease/HIP



Summary

1. Identify hazards in the environment (floors, heights, confined spaces, weather, etc.)

2. Identify hazards with equipment and materials (devices, chemicals, etc.)

3. Identify hazards from third-parties (patients, visitors, external/outside events, etc.)

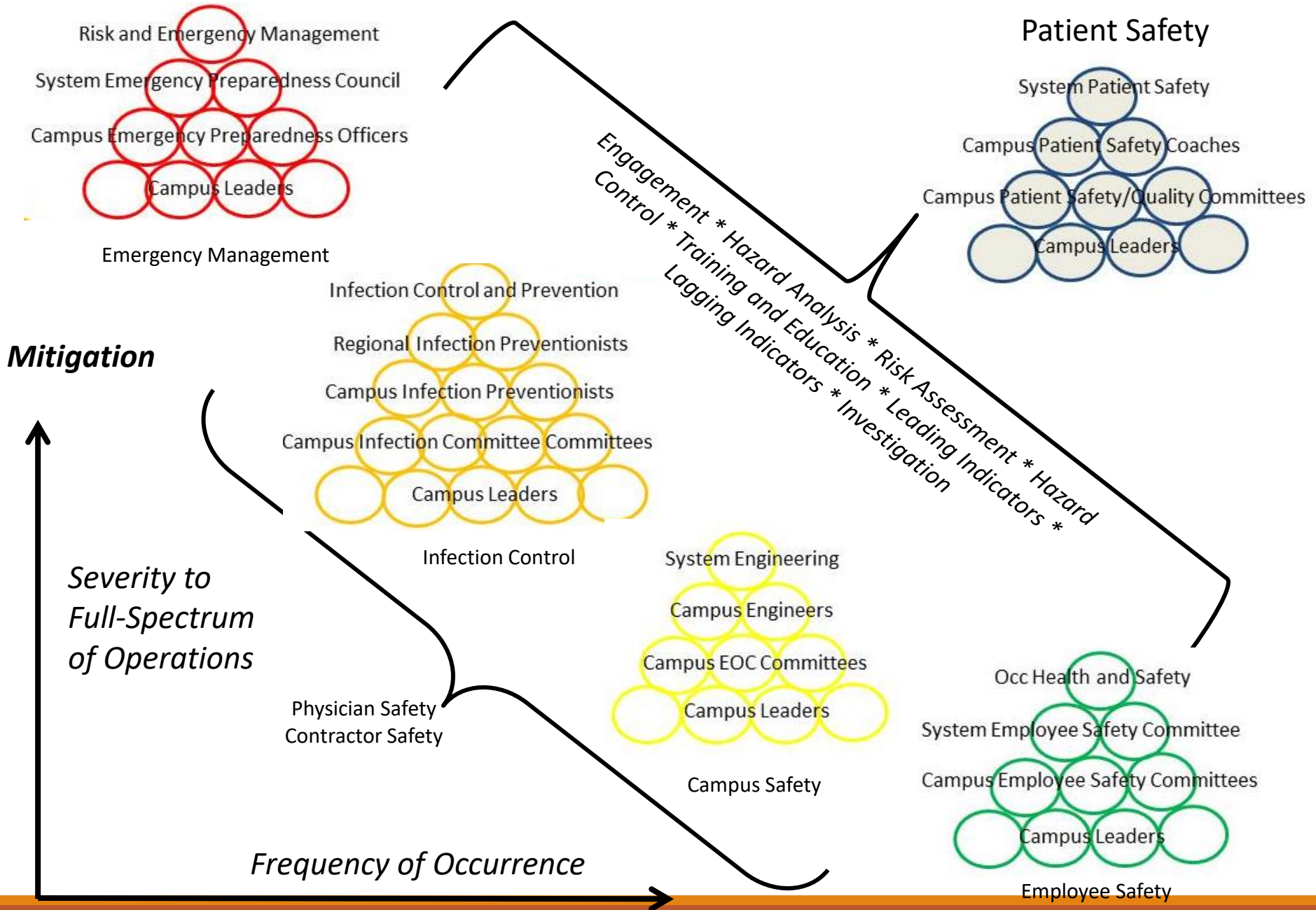
4. Apply applicable regulations, standards and policies

5. Apply the Hierarchy of Controls

6. Provide training on all hazard controls

7. Provide situational awareness training/coaching to understand and identify when to use hazard controls

8. If possible, provide exercises/conditioning to practice identifying real-time dynamic hazards and using hazard controls (such as Infectious Disease, Active Shooter or HAZMAT response exercises)


Risk and Emergency Management
System Emergency Preparedness Council
Campus Emergency Preparedness Officers
Campus Leaders
Emergency Management
Patient Safety
System Patient Safety
Campus Patient Safety Coaches
Campus Patient Safety/Quality Committees
Campus Leaders
Engagement * Hazard Analysis * Risk Assessment * Hazard Control * Training and Education * Leading Indicators * Lagging Indicators * Investigation
Mitigation
Infection Control and Prevention
Regional Infection Preventionists
Campus Infection Preventionists
Campus Infection Committee Committees
Campus Leaders
Infection Control
Severity to Full-Spectrum of Operations
System Engineering
Campus Engineers
Campus EOC Committees
Campus Leaders
Campus Safety
Physician Safety
Contractor Safety
Occ Health and Safety
System Employee Safety Committee
Campus Employee Safety Committees
Campus Leaders
Employee Safety
Frequency of Occurrence
Prevention

Questions, Concerns or More Info?

If you'd like more information, I'm happy to send my books, articles and other resources/presentations, free of charge. Feel free to let me know if interested.

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