

# ***Introduction to Root Cause Analysis (RCA)***

## ***Understanding the Causes of Events***

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Andrea B. Silvey, PhD, MSN  
HSAG Chief Quality Improvement Officer

## ***Objectives***

- Understand RCA components.
- Learn how human factors, human errors, and communication issues relate to Root Cause Analysis (RCA) principles.
- Apply principles to assist your facility in identifying the causes of undesirable outcomes and overcoming barriers to improvement.

## ***Definitions for Root Cause Analysis***

**Formal definition:** An analytic technique that can be used to perform a comprehensive, system-based review of performance failures and unexpected events.

**Working definition:** A way of looking at unexpected events and undesirable outcomes to determine all of the underlying causes and recommend changes that are likely to improve them.

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## ***Types of Error***

- **Errors of commission:** doing something that has the potential to result in an undesirable outcome (doing something that shouldn't be done)
- **Errors of omission:** failing to do something that has the potential to prevent an undesirable outcome (not doing something that should be done)
- **Errors of execution:** doing something that should be done, but doing it incorrectly

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## ***Human Error: Poor Execution Unintentional Omission/Commission***

- **Unintentionally** doing something that has the potential to result in an undesirable outcome
- **Unintentionally** failing to do something that has the potential to prevent an undesirable outcome
- Doing what should be done but **doing it incorrectly**

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## ***Willful Disregard: Intentional Omission/Commission***

- **Intentionally** doing something that has the potential to result in an undesirable outcome
- **Intentionally** failing to do something that has the potential to prevent an undesirable outcome

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## ***Causes That Contribute to Undesirable Outcomes***

- No policy/process in place
- Policy/process not followed
- Policy/process followed but insufficient
- Policy/process followed but execution deficient

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## ***Digging Deeper: Looking for the Roots***

- **No policy/process in place...Why???**
  - Need not recognized
  - Not considered important
  - Not a high priority
  - Don't know what it should be
  - No one responsible for writing it
  - Responsible party does not have the time to write it
  - Don't know who should approve it

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## ***Digging Deeper: Looking for the Roots***

- **Policy/process not followed...Why???**
  - Willful disregard
  - Workaround (why?? inefficient??)
  - Not aware/trained regarding the policy/process
  - Lack of time or resources (i.e., equipment, supplies) to follow policy/process

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## ***Digging Deeper: Looking for the Roots***

- **Policy/process followed but insufficient...Why???**
  - Missing essentials
  - Lacks evidence

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## ***Digging Deeper: Looking for the Roots***

- **Policy/process in place but execution deficient...Why???**
  - Insufficient training/skills
  - Human factors
    - Lapse in attention
    - Fatigue
    - Poor judgment (commission)
    - Miscommunications/misunderstandings
    - Fear of insubordination (omission)

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## ***IOM's Proposed Solution***

Health care organizations should:

- Define leadership responsibility.
- Identify and learn from errors.
- Set performance standards.
- Implement safety systems [e.g., surveillance].

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## ***Barriers That Impact Safety***

- Unclear organizational values
- Fear of punishment
- Lack of systematic analysis of mistakes
- Complexity of the work
- Inadequate teamwork

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## ***Incidents Surrounding Communication***

Ineffective communication is a root cause for nearly 66 percent of all sentinel events reported.

*(JCAHO Root Causes and Percentages for Sentinel Events (All Categories)  
January 1995–December 2005)*

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## ***Event Accountability***

“To promote a culture in which we learn from our mistakes, organizations must re-evaluate just how their disciplinary system fits into the equation.

- Disciplining employees in response to honest mistakes does little to improve overall system safety.
- Yet, mishaps accompanied by intoxication or malicious behavior present an obvious and valid objection to today’s call for blame-free error reporting systems.”

David Marx, 2001 **15**

## ***Successful Characteristics***

- Safe, nonpunitive environment
- Reporting forms simple to use
- Timely and valuable
- Incentives for voluntary reporting
- Open culture
- Sustained leadership support

Leape, 2002

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## ***Lessons to Be Learned***

- Reward incident reporting
- Focus on identifying system issues
- Promote open communication
  - Feedback
  - Education
- Involve everyone
  - Nonjudgmental analysis

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## ***Analysis Should Include***

- How did the incident happen?
- What factors contributed to the incident—at what level?
- Were policy/process intentionally disregarded?
- Were mitigating strategies for intervention identified prior to the event?

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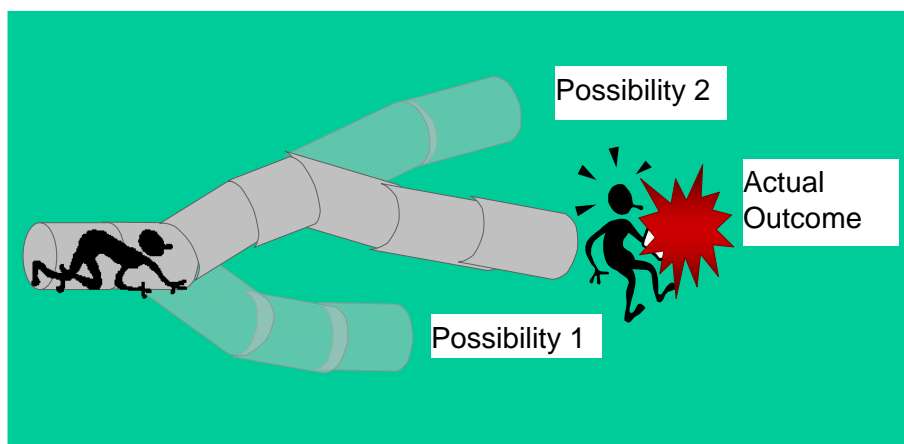
## ***Remember: The Goal Is to UNDERSTAND WHY***

“The point of a human error investigation is to understand why actions and assessments . . . made sense to people at the time. You have to push on people’s mistakes until they make sense—relentlessly.”

Sidney Dekker

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## ***Getting Inside the Tunnel***



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## ***Lessons From the Tunnel***

- We haven't fully understood an event if we don't see the actors' actions as *reasonable*.
- The point of a human error investigation is to understand why people did what they did, not to judge them for what they did not do.

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## ***Summary***

- New view of human error
- Events are the result of many causes
- Root causes are causes with potential for redesign to reduce risk
- Getting inside the tunnel will help us understand why events occur

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## Contact Information

Andrea B. Silvey, PhD, MSN  
HSAG Chief Quality Improvement Officer  
Phone: (602) 665-6135  
E-mail: [asilvey@hsag.com](mailto:asilvey@hsag.com)

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## Introduction to Root Cause Analysis

*Over 1 million drug-related injuries occur every year in health care settings. The Institute of Medicine estimates that at least a quarter of these injuries are preventable.*

**To find out how to prevent medication errors, go to**  
<http://www.hsag.com/azproviders/drugsafety.aspx>.



[www.hsag.com](http://www.hsag.com)

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