After the Incident:

A guide to workplace injury and fatality investigations

Judy Kainz CRSP

JK & Associates
HEALTH & SAFETY SPECIALIST

June 17, 2025

Course Objectives

- ✓ Understanding the difference between Criminal and Occupational Health & Safety legal obligations and regulatory frameworks
- ✓ Essential skills for conducting workplace investigations
- ✓ Best practices for interviewing, documentation, and evidence handling
- ✓ Common investigation mistakes and how to avoid them

JK & Associates
HEALTH & SAFETY SPECIALIST

Authorities & Legal Obligations

- Criminal Code
- Territorial or Provincial Occupational Health & Safety

JK & Associates
HEALTH & SAFETY SPECIALIST

Authorities & Legal Obligations
Canadian Federal, Provincial / Territorial Legislation

- Take all reasonable precautions to ensure the health and safety of everyone in the establishment.
- Implement measures to maintain the health and safety of all individuals in the workplace.
- https://ccinfoweb2.ccohs.ca/legislation/documents/notes/oshleg/leg_own.htm
- Ontario OHS Act Part III section 25

Can charges be placed under a *Provincial Act* and the *Criminal Code* at the same time?

- Both police and health and safety inspectors often investigate serious workplace accidents.
- Typically, they work together to determine charges, which may arise under the Criminal Code or the Occupational Health and Safety Act.
- While it's uncommon, charges can be filed by both authorities.

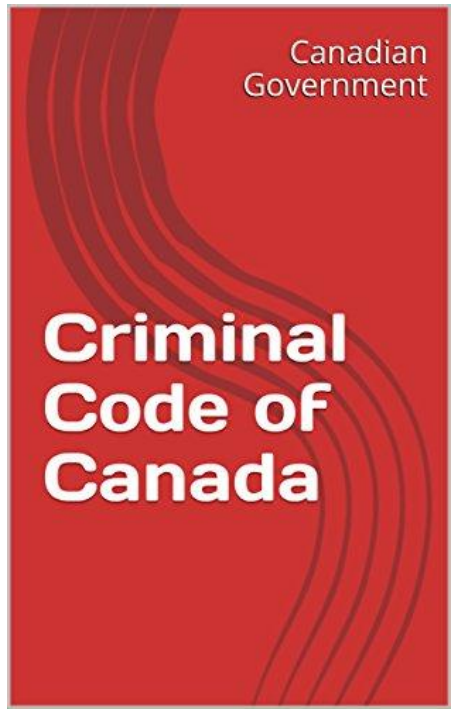
Authorities & Legal Obligations

Canadian Federal, Provincial / Territorial Legislation

Criminal Law
vs.
Occupational Health and Safety (OHS)

JK & Associates
HEALTH & SAFETY SPECIALIST

Authorities & Legal Obligations
Canadian Federal

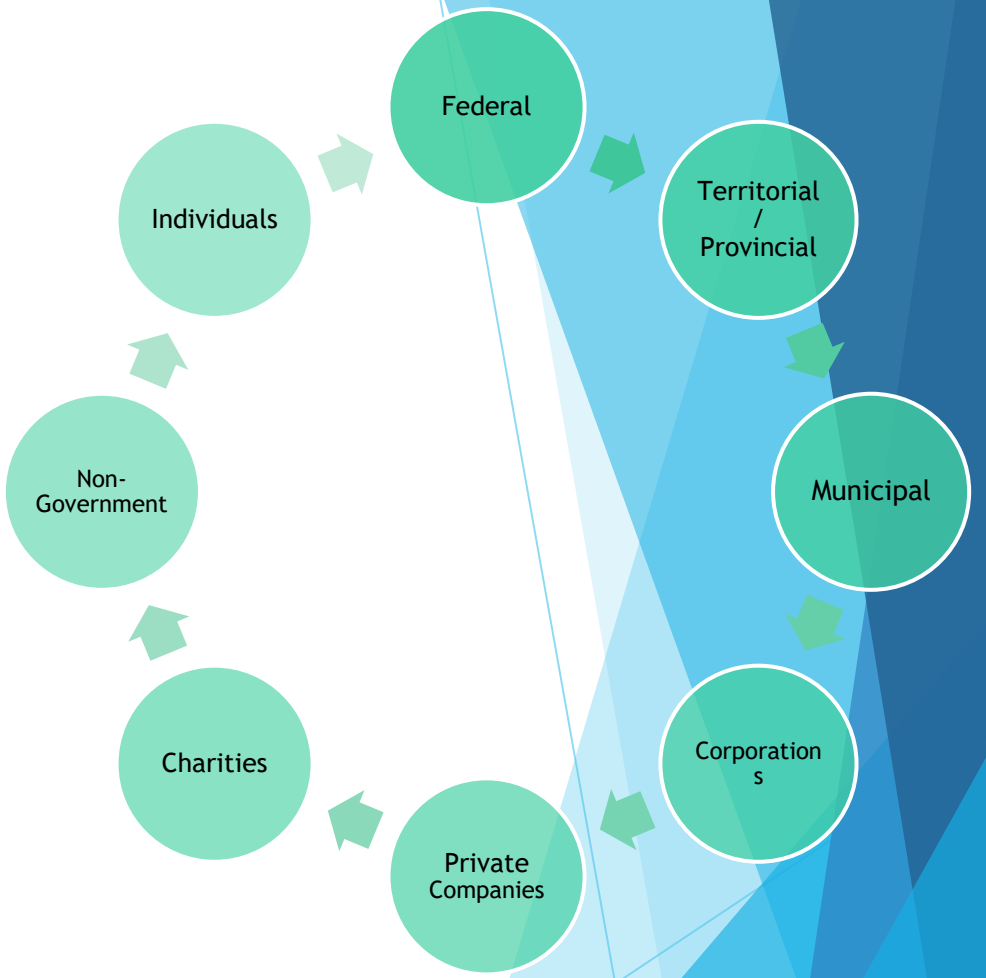


- Criminal Code 217.1 - law in 2004
- Imposes serious penalties for violations that result in injuries or death.
- Liability for negligence by supervisors or those who direct the work of others

Authorities & Legal Obligations
Canadian Federal

- **The Criminal Code Section 217.1 applies to everyone and is enforced by Law Enforcement**

"…everyone who undertakes, or has authority to direct how another person works or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task."



JK & Associates
HEALTH & SAFETY SPECIALIST

Objective of Criminal Code Investigation

The legislation does not interfere with existing occupational health regulations and broadens the definition of “organization” for liability purposes.

- Key points include:-
- Rules for establishing criminal liability for organizations based on representatives’ actions.
- A legal obligation for those directing work to ensure the safety of workers and the public.
- Factors for courts to consider during the sentencing of organizations.
- Optional probationary conditions that may be imposed on organizations.

OHS Legislation – the Act

There are legal requirements in Ontario under the OHSA for employers to report where:

- a person is killed or critically injured at a workplace,
- a person is disabled from performing his or her work,
- a person requires medical attention because of an accident, explosion, fire or incident of workplace violence or
- if an employer is told that a worker has an occupational illness or that a claim for an occupational illness has been filed with the Workplace Safety and Insurance Board (WSIB) at the workplace where there is no fatality or critical injury

JK & Associates
HEALTH & SAFETY SPECIALIST

Critical Injury - Regulation 834

An injury of a serious nature that:

(a) Place's life in jeopardy;

(b) Produces unconsciousness;

(c) Results in substantial loss of blood;

Involves the:

- fracture of a leg or arm but not a finger or toe;
- includes the fracture of a wrist, hand, ankle or foot – i.e. any such fracture would constitute a critical injury of a serious nature.
- While a fracture of a single finger or single toe does not constitute a critical injury, the Ministry takes the position that the fracture of more than one finger or more than one toe **DOES** constitute a critical injury if the injury is of a serious nature.

(e) Involves the amputation of a leg or arm, hand or foot, but not a finger or toe.

(f) Consists of burns to a major portion of the body; **and/or**,

(g) Causes the loss of sight in an eye.

Occupational Illness & Injury

Occupational Illness

An occupational disease is a health problem caused by exposure to a hazardous substance or condition in the workplace.

Occupational Injury

Bodily damage resulting from exposure to safety hazards in the workplace.

JK & Associates
HEALTH & SAFETY SPECIALIST

Objective of OHS Investigation

The investigation should focus on

- Understanding the situation rather than assigning blame, aiming to identify contributing factors and foster growth.
- Gathering information that can lead to corrective actions, thereby preventing similar incidents in the future.
- Identifying the underlying factors that may have contributed to the incident.
  - Direct Cause
  - Contributing Cause
  - Root Cause

Occupational Health & Safety

Roles and Responsibilities

Internal Responsibility System

JK & Associates
HEALTH & SAFETY SPECIALIST

Employer Responsibilities

- Health and Safety of workers (everyone) in their establishment
- Safe equipment
- Safe use, handling, and storage
- Information, instruction, training, and supervision

…… So far as is reasonably practicable

JK & Associates
HEALTH & SAFETY SPECIALIST

Who is a Supervisor…

"…a worker who has one or more workers under his or her control or supervision."

JK & Associates
HEALTH & SAFETY SPECIALIST

Worker Rights & Responsibilities

Workers are responsible for

- their own safety,
- safety of co-workers,
- general public.

Right to Know

Right to Participate

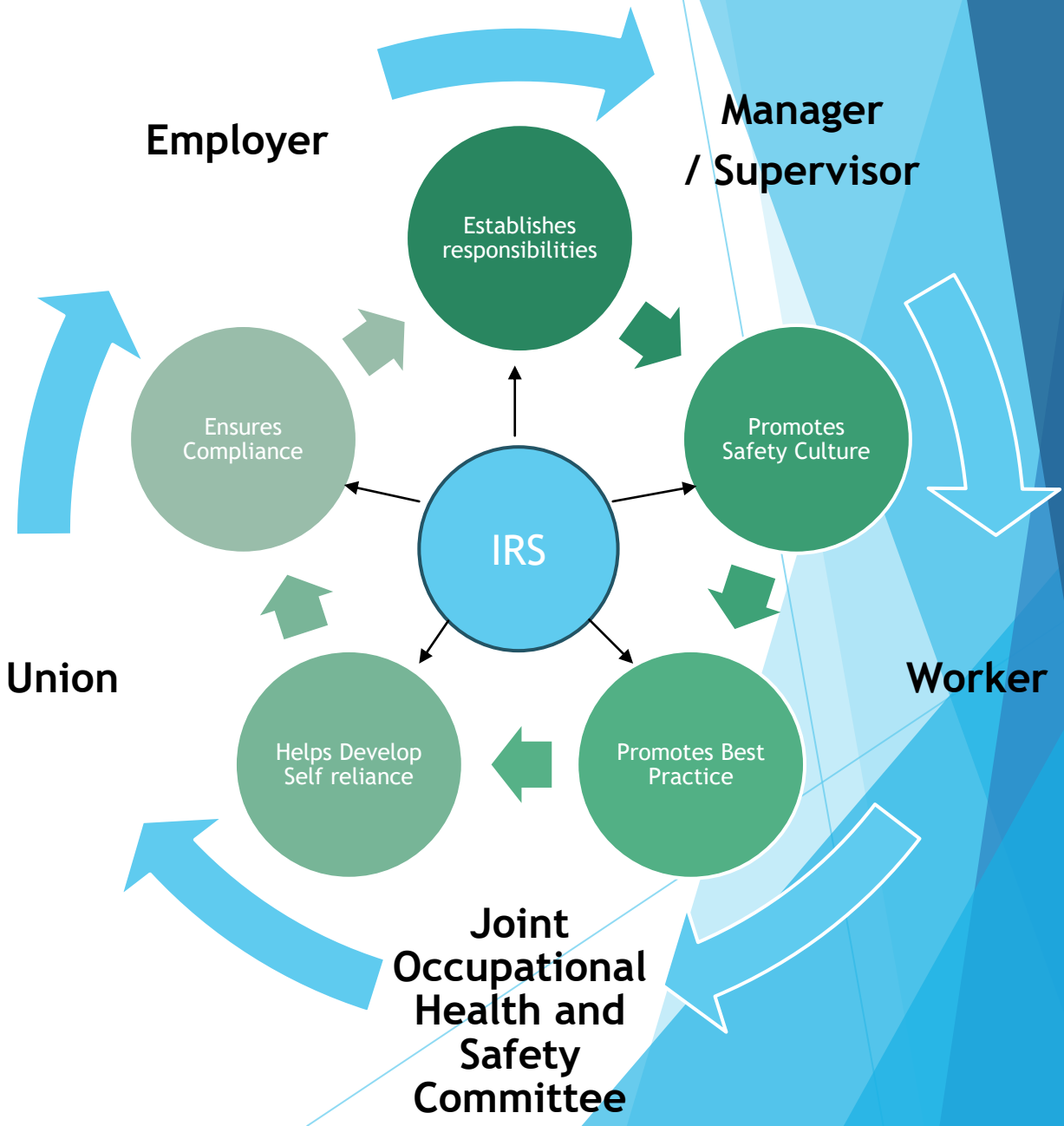
Right to Refuse

JK & Associates
HEALTH & SAFETY SPECIALIST

Internal Responsibility System

All workplace parties working together to ensure worker safety:

- Employer
- Employee (Supervisor/Worker)
- Union*
- Joint Occupational Health & Safety Committee (JOHSC)



JK & Associates
HEALTH & SAFETY SPECIALIST

Workplace Investigations

JK & Associates
HEALTH & SAFETY SPECIALIST

Types of Emergencies

Workplace Emergency: An unforeseen situation that threatens workers, customers, or the public, disrupts or shuts down operations, or causes physical or environmental damage.

- Injuries, Fatality
- Fire / Explosion
- Building collapse
- Major structural failure
- Spills of flammable liquids
- Accidental release of toxic substances
- Deliberate release of hazardous biological agents or toxic chemicals
- Other terrorist activities
- Loss of power and/or communications

Accident VS Incident

Accident

An unplanned event that interrupts the completion of an activity, and that **may (or may not) include injury or property damage**

Incident

An occurrence, condition, or situation arising in the course of work that **resulted in or could have resulted** in injuries, illnesses, damage to health, or fatalities

An accident or incident investigation is a fact-finding process that focuses on identifying and documenting all contributing factors to an incident.

For simplicity, we will use the term Incident to mean all events

JK & Associates
HEALTH & SAFETY SPECIALIST

The Purpose of Incident Investigation

The purpose of an investigation is not to find fault or lay blame, but to identify the root causes of incidents so that controls can be put in place to prevent further occurrences

Incident investigations help employers:

- Prevent injuries and illnesses
- Save lives
- Save money
- Demonstrate commitment to health and safety
- Promote positive workplace morale
- Ensure compliance with the law

JK & Associates
HEALTH & SAFETY SPECIALIST

Incident Investigation Procedure

Organizations establish

- Clear and consistent process,
- Root cause analysis,
- Recommendations for measures and controls to prevent recurrence.

Documenting the steps, roles, and responsibilities involved ensures everyone understands the process.

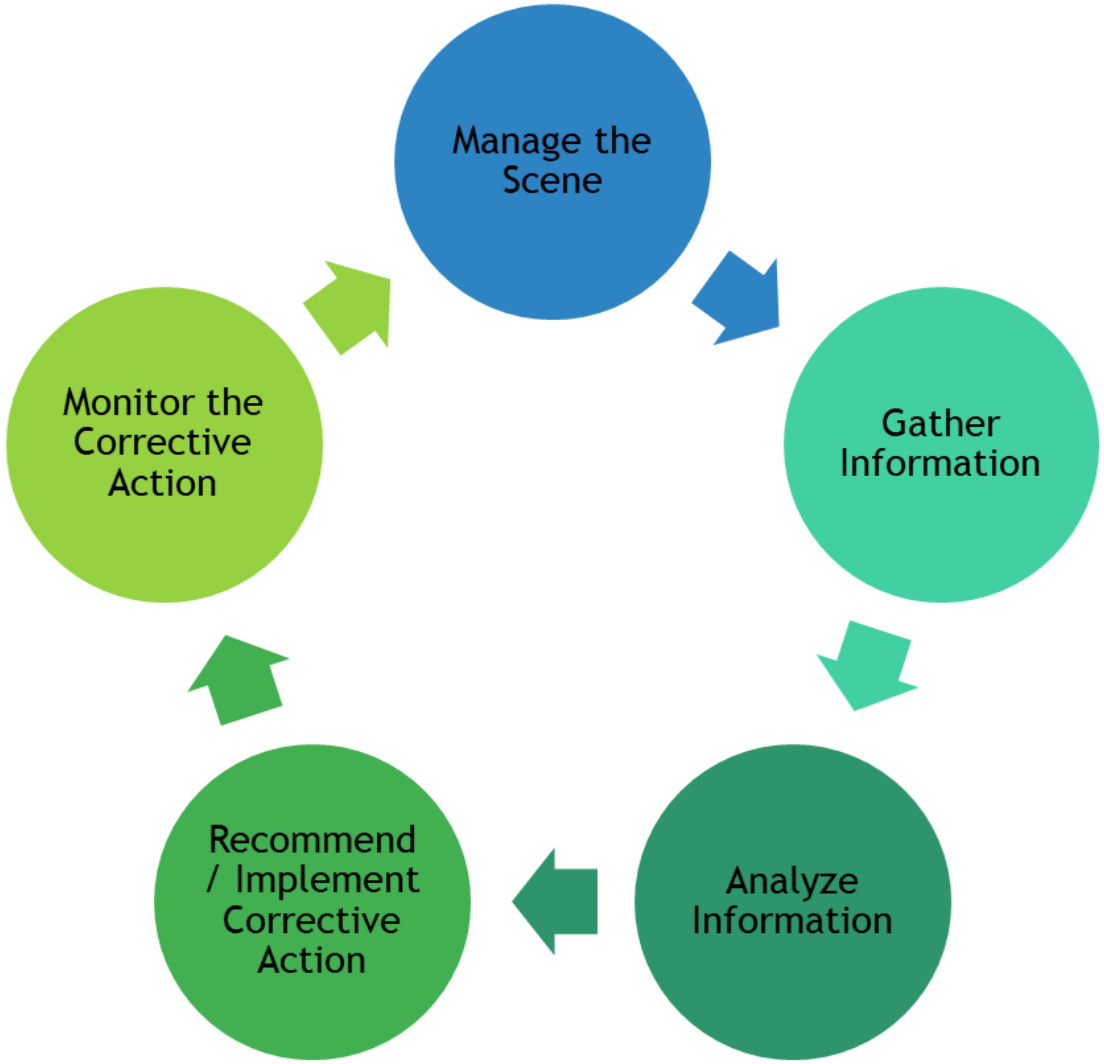
Who Conducts Incident Investigation

Build a diverse team of experts from various fields to enhance the investigation with a broad range of insights.

- Supervisors
- Joint Health & Safety Committee Members
- Skilled trades
- Outside experts

JK & Associates
HEALTH & SAFETY SPECIALIST

Five Basic Steps of an Incident Investigation



JK & Associates
HEALTH & SAFETY SPECIALIST

Action

Manage the Scene

Take immediate action:

- First aid/other medical attention
- Secure the scene to prevent further injuries or escalation of the incident
- Notify relevant parties, Internal/External

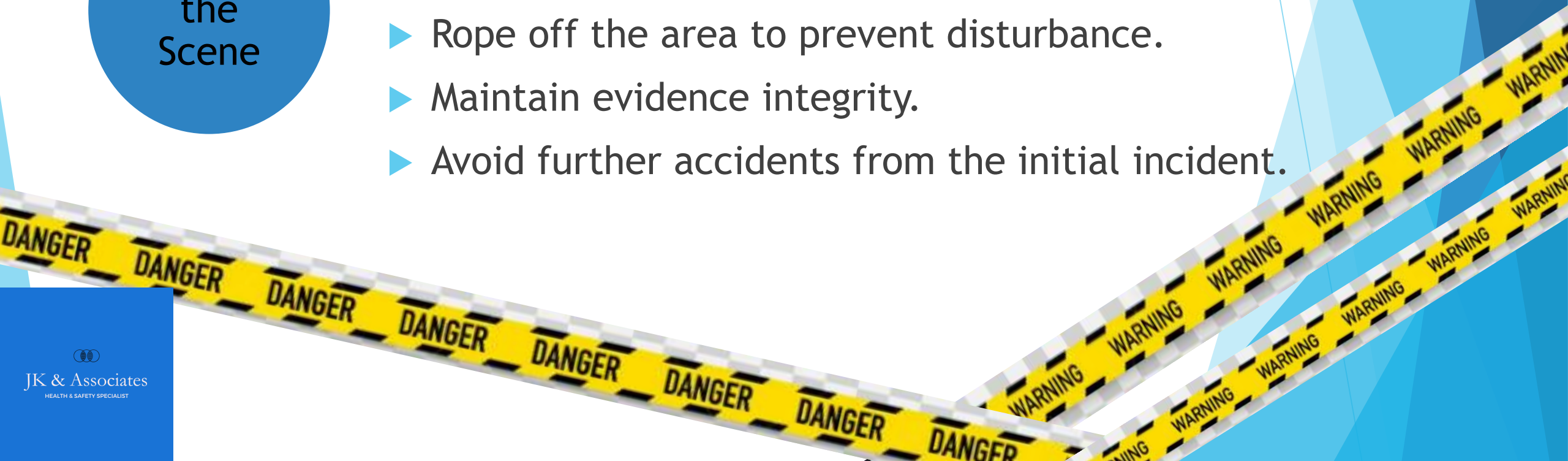
JK & Associates
HEALTH & SAFETY SPECIALIST

Secure the Scene

Manage the Scene

Securing the scene is vital for preserving evidence and supporting investigations.

- Turn off, lock out, and tag equipment.
- Rope off the area to prevent disturbance.
- Maintain evidence integrity.
- Avoid further accidents from the initial incident.



JK & Associates
HEALTH & SAFETY SPECIALIST

Notify Relevant Parties

Manage the Scene

Gather Information

When there is a critical injury or fatality, the following parties must be notified immediately:

- Joint Health and Safety Committee (JHSC)
- Union (if applicable)
- Ministry of Labour
- Police (may automatically attend, but must be notified of a death or injury involving workplace violence)

JK & Associates
HEALTH & SAFETY SPECIALIST

Incident Investigation Planning

Gather Information

Planning ensures that the investigation is systematic and thorough

- What resources will be required
- Who will be involved
- How long will the investigation take

Pitfall: Going down "Rabbit Holes" outside of scope

Define Scope and Objectives:

Clearly define the scope and objectives of the investigation. Identify the incident's boundaries and determine the level of detail required for the analysis.

Incident Investigation Planning

Gather Information

- Personal Protective Equipment
- Camera (Digital photos?)
- Flashlight (with batteries)
- Emergency Phone Numbers
- Measuring tape
- Safe work procedures
- Accident Investigation Forms
- Optional - tape recorder, photo log, flares, etc.

Pitfall:
Care and control of digital photos

JK & Associates
HEALTH & SAFETY SPECIALIST

Collect

- Gather Information:
  - Collect all available information related to the incident, including facts, observations, data, and documentation.
  - Conduct interviews with involved parties, witnesses, and subject matter experts to gather valuable insights.
- Ensure a thorough investigation;
  - It is crucial to initiate it as soon as possible after an incident,
  - Preserve the scene, prevent evidence loss, and identify witnesses.

JK & Associates
HEALTH & SAFETY SPECIALIST

Secure the Scene

Gather Information

- Document the scene
- Collect physical evidence
- Examine physical evidence
- Interview Witnesses
- Make a detailed record
- Temporary Controls

JK & Associates
HEALTH & SAFETY SPECIALIST

Temporary Controls

Gather Information

If the incident scene presents ongoing hazards, implement temporary measures to mitigate those risks.

May include

- cleaning up spills,
- stabilizing structures,
- posting warning signs,
- full or partial shutdown of the worksite,
- removal of equipment,
- or reassignment of workers to other duties.

JK & Associates
HEALTH & SAFETY SPECIALIST

Document the Scene

Gather Information

Take photographs and videos of the scene from multiple angles. Capture images of any machinery, vehicles, substances, or environmental conditions

- injured workers,
- tools, equipment and materials,
- safety devices and personal protective equipment,
- machinery and equipment controls
- other factors related to the incident

Pitfall: Focusing only on a small area

JK & Associates
HEALTH & SAFETY SPECIALIST

Collect Physical Evidence

Gather Information

Collecting evidence can clarify events and support various theories.

- Wrap and label all items in clean, dry, and leak-proof containers.
- Record the origin of each specimen and its initial appearance.

  Example:

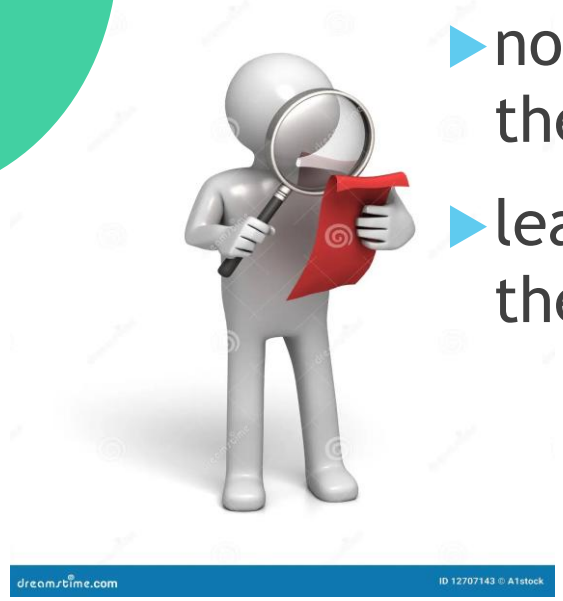
  - Any tools, materials, machinery parts or subassemblies which are suspected of failure, malfunction, misfit or faulty design
  - Air or toxic substances that may have contributed to the incident
  - Liquids or solids not normally present at the site of the incident

Pitfall:
The ability to gather and take evidence

JK & Associates
HEALTH & SAFETY SPECIALIST

Examine Physical Evidence

Gather Information



Preserve Evidence:

- Take steps to preserve physical evidence at the scene.
  - not moving vehicles or equipment involved in the accident unless necessary for safety,
  - leaving all objects in their original position at the time of the accident.

JK & Associates
HEALTH & SAFETY SPECIALIST

Interview Witnesses

Gather Information

- **Collect Witness Statements:**
  - **Identify and interview anyone who may have witnessed the accident.**
  - **Keep the witnesses separated**
  - **Record their statements, along with their names and contact information, for future reference and follow-up.**
  - **Open-ended questions – fact finding**

Pitfall: Legal liabilities

JK & Associates
HEALTH & SAFETY SPECIALIST

Make a Detailed Record

Gather Information

Write a detailed account of the scene, including:

- the date,
- time,
- location of the accident.

Describe the events leading up to the incident and what occurred during and after the incident.

Includes things like:

- Weather conditions
- Changes in production or work schedules
- On-the-job experiences

JK & Associates
HEALTH & SAFETY SPECIALIST

Why Did it Happen?

At this point in the investigation, we should understand WHAT and HOW the incident happened.

Now the key question is:

- Why did it happen?
- Focus on the process rather than individuals,
- Examine the underlying causes that trigger a chain of events leading to an incident.
- Identify the root problems, and we can eliminate not only the primary issue but also the series of general and immediate causes that arise from it.

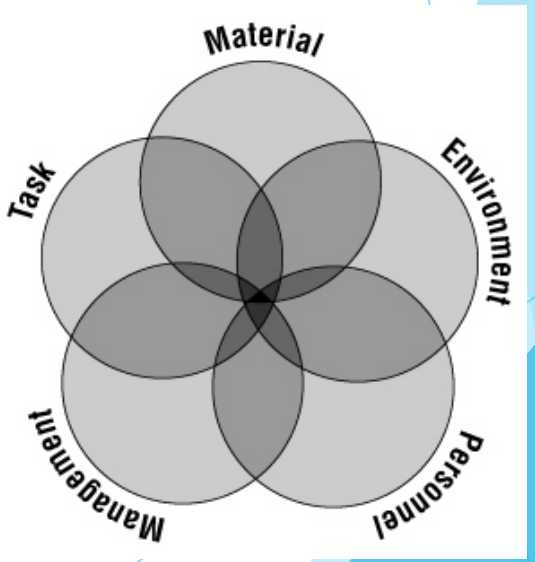
JK & Associates
HEALTH & SAFETY SPECIALIST

Root Cause

Identify the root cause of the incident step by step.

- Identify patterns and contributing factors.
- Work backwards from the incident, noting possible causes and whether the evidence is factual, direct, or based on assumptions.
- This helps highlight differences that may require further clarification.

Review how the task, material, environment and personnel management played a part in the sequence of events.



JK & Associates
HEALTH & SAFETY SPECIALIST

Types of Root Cause Techniques

Technique	Description
5 Whys	A simple iterative technique that involves asking “Why?” multiple times until the root cause is identified.
Fishbone Diagram (Ishikawa)	A visual tool that categorizes potential causes of an incident into different areas such as people, process, environment, etc.
Failure Mode and Effects Analysis (FMEA)	A method that evaluates potential failures in a process and their impact on the overall system.
Fault Tree Analysis (FTA)	A top-down approach that starts with an undesired event and identifies all possible contributing factors.
Bowtie Analysis	A combination of fault tree and event tree analysis that visually depicts the pathways of risks and controls.

5 Whys

Accident	#1 Why	#2 Why	#3 Why	#4 Why	#5 Why
A worker slipped on the floor	The floor was wet	A pipe was leaking	The pipe was old and corroded	Maintenance was delayed	Budget cuts reduced maintenance schedules
Strain back while arresting a subject					

5 Whys

Accident	#1 Why	#2 Why	#3 Why	#4 Why	#5 Why
Fall from height during a training activity					
Walking up stairs in an apartment building					

Root Cause Analysis Challenges

Stay focused on key details to keep your investigation on track, and include all potential factors to strengthen your analysis

Remember too:

- Maintain objectivity to avoid bias.
- Identify the exact sequence of events.
- Avoid irrelevant details that can slow progress.
- Consider all factors to prevent missing important elements.
- Recognize systemic failures for long-term improvement.
- Look at multiple causes to see connections accurately.

Challenges in Root Cause Analysis Related to Human Factors

Understanding human factors plays a vital role in enhancing the effectiveness of Root Cause Analysis. Keep in mind:

- fatigue,
- communication breakdowns,
- decision-making errors,

By addressing these elements, we can improve our ability to identify underlying issues and develop more effective solutions.

JK & Associates
HEALTH & SAFETY SPECIALIST

Direct / Contributing Factors

Analyze Information

Incident

Cause and Effect Relationship

- Direct Cause
- Contributing / Underlying Cause

JK & Associates
HEALTH & SAFETY SPECIALIST

Direct and Contributing Factors.

Immediate causes:

- Identifying the factors that directly led to the incident. These causes are typically easy to observe.

Contributing causes:

- Digging deeper to uncover the underlying causes or factors that allowed the immediate causes to exist. This involves exploring systemic or organizational issues, such as communication gaps, inadequate training, or flawed processes.

Analyze cause-and-effect relationships:

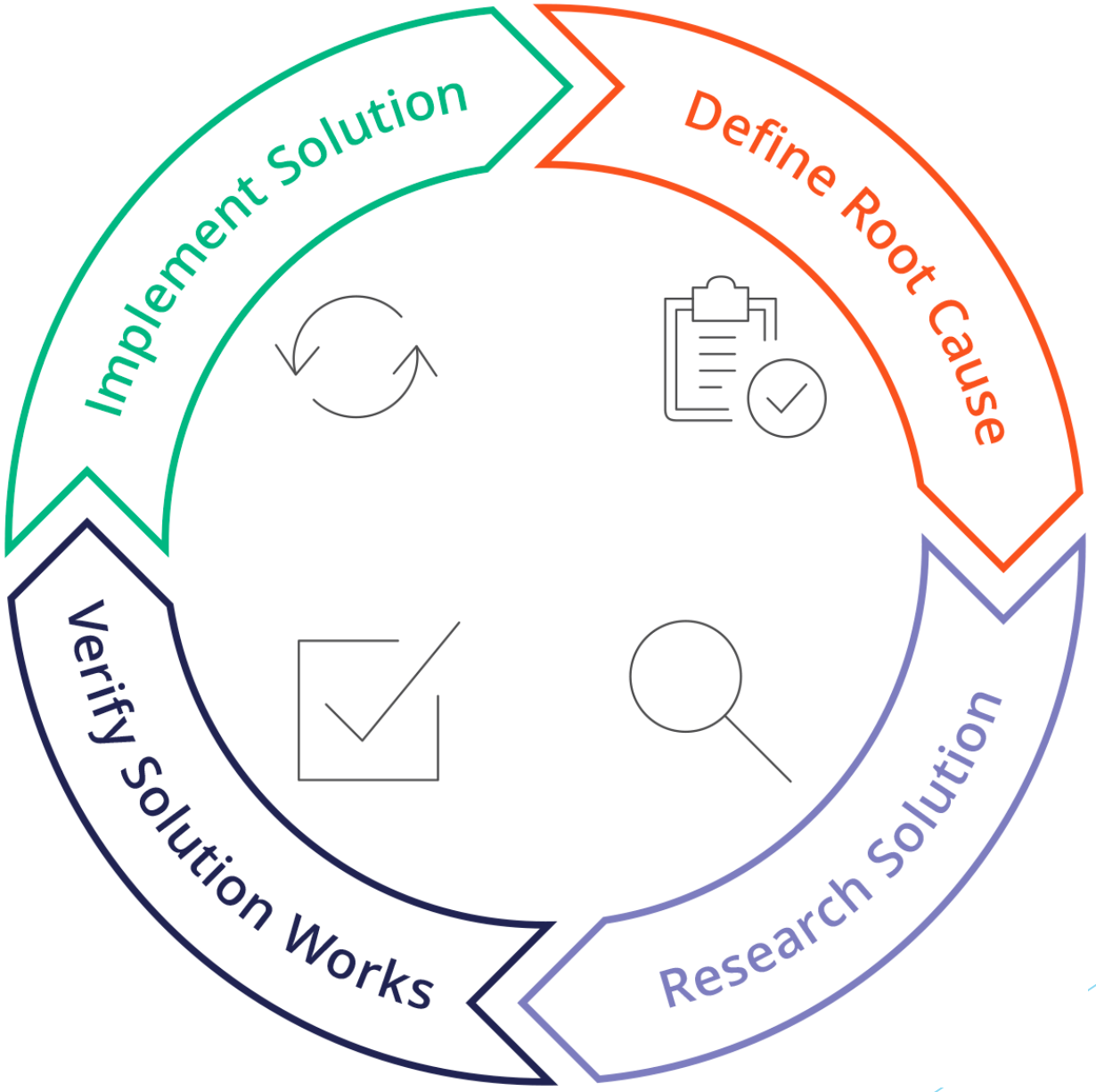
- Understanding the relationships between the immediate and underlying causes

JK & Associates
HEALTH & SAFETY SPECIALIST

Human Error Factor

- Investigators often hesitate to assign blame. However, if a thorough worksite investigation identifies individuals from management, supervision, or the workforce as responsible, it's crucial to acknowledge this. The aim is to resolve the issue, not to punish anyone.
- Not identifying human errors in an incident can lower the investigation's quality and increase the likelihood of similar incidents in the future.
- Avoid recommending disciplinary actions for those at fault; such matters should be referred to the organization's Human Resources Procedures.

Analyze Information



JK & Associates
HEALTH & SAFETY SPECIALIST

Document Analysis Findings

Create an incident report that summarizes what happened and the factors that contributed to it:

- Describe the events in the order they occurred.
- Identify the leading causes and other factors that contributed to the incident and list any evidence to support theories
- Explain the methods and resources used to investigate the incident.
- List only facts that can be supported, not personal opinions
- List any corrective actions taken during the investigation.

This document will be read by many and could be used in legal proceedings.

Develop Corrective Actions

- Ensure actions are specific, measurable, achievable, relevant, and time-bound (SMART) to facilitate effective implementation.
- Effective corrective actions address not only the symptoms of an incident but also the underlying causes.
- This approach ensures lasting improvements in safety.

JK & Associates
HEALTH & SAFETY SPECIALIST

Final Report

The final report must outline the incident's circumstances, recommend corrective actions, and prioritize implementation.

- Recommendations should be specific and constructive
- Additional elements to include in the report:
  - Opportunities for improvement identified
  - Areas of excellence recognized
  - Review lessons learned to enhance incident investigation and root cause analysis methods.
- Confidentiality

JK & Associates
HEALTH & SAFETY SPECIALIST

Communicate and follow up

- Share investigation findings and corrective actions with Management.
- It is the Management's responsibility to
  - Share the report with other organizational levels or outside agencies.
  - Implement and monitor corrective actions to ensure effectiveness.

JK & Associates
HEALTH & SAFETY SPECIALIST

Employer

Monitor the Corrective Action

- After the investigation, the employer must take corrective actions to prevent future incidents and prepare a report detailing these actions.
- The report should be shared with the Joint Health and Safety Committee or the appropriate worker representative.

Follow up

Monitor the Corrective Action

- The Employer is responsible for acting on the recommendations outlined in the investigation report.
- The Joint Occupational Health and Safety Committee may be tasked with overseeing the implementation of the recommendations.
- Follow-up actions include:
  - Responding to recommendations with explanations of what can and cannot be done.
  - Creating a timetable for corrective actions.- Monitoring the completion of scheduled actions.
  - Checking on the condition of injured workers.
  - Educating at-risk workers.
  - Re-orienting workers upon their return to work.

JK & Associates
HEALTH & SAFETY SPECIALIST

Summary
After the Incident

- The investigation process is the same for a twisted ankle or a fatality; the time spent and the resources change
- Sometimes we need to think outside the box for corrective actions
- Look after the investigator team (mental health)

We honour those injured on the job by identifying the root cause and taking corrective actions to prevent future incidents.

JK & Associates
HEALTH & SAFETY SPECIALIST

Questions?

JK & Associates
HEALTH & SAFETY SPECIALIST