



# ▶ Safety Metrics: Leading & Lagging Indicators



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Healthier people. Healthier profit.



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- 12 Year Safety Professional
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  - National Safety Council
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# About Falcon Safety Group

FSG provides Human Resource, Safety and Risk Management strategies for businesses that focus on protecting their employees.

# “Old and New” in Safety:

- The Old Way = Safety Program
- The New Way = Safety Culture

# Management Involvement In Safety:

- Old Way...  
Safety is No. 1 priority
- New Way...  
Safety is an integral part of business success

# Leading Indicators:

- Definition-Measures that “drive” or lead to the performance of lag measures; normally measuring intermediate processes and activities.
- Key for Leading Indicators: **Must be Measurable.**
- Proactive approach to safety!

# Why Use Leading Indicators:

- The time delay between the actions we take and the outcomes that result: the lagging indicators may provide information too late for us to respond to.
- The outcome rates being measured are low, e.g. when safety is good and injury rates are low, these measures are not sufficient to provide adequate feedback for effective management of the process
- The outcomes are so severe that you can't wait for it to happen to find out that the process is going wrong.
- Lagging indicators may fail to reveal hazards that have a significant potential to result in disaster.

# Lagging Indicators:

- Definition- Measures focusing on results at the end of a time period, normally characterizing historical performance. Also referred to as Key Results Indicator (KRI)



# Lagging Safety Metrics Indicators:

- Injury/Illness Rates
  - Lost Time Rates
  - Employee Turnover
  - Number of workdays without a loss
- Can drive reporting “underground” (i.e., incentive programs for “zero injuries”...no one wants to stop the contest)

# How Do You Decide What Activities To Measure?

- It depends on your goals and what you want to accomplish—No Right or Wrong Answers

# Characteristics of good indicators:

- For any performance indicator to be effective, it is important that it is:
  - Objective and easy to measure and collect
  - Relevant to the organization or workgroup whose performance is being measured
  - Providing immediate and reliable indications of the level of performance
  - Cost efficient in terms of the equipment, personnel and additional technology required to gather the information
  - Understood and owned by the workgroup whose performance is being measured.

## Some Items to Consider Looking At:

- Organizational Vision, Goals, Strategic Plans
- Safety Perception Surveys
- Structured Interviews
- Safety Audits/Inspections
- Root Cause Accident Analysis
- Accident Trends
- Behavior Observation Data

# How Do I Get Started?

- Two Basic Types of Approaches depending on what you are trying to Improve:
  - **Focused** – Focus on a specific loss or exposure area (E.g. Slips/Trips/Falls)
  - **Organizational** – Broad application of loss and/or exposure areas

# Building Your Approach:

## Key Selection Criteria:

- Correlate Leading and Lagging Indicators
- “Peel Back” from Loss and Exposure Analysis, Accident Investigations, etc.
- Thorough Analysis To Select Best Leading Indicators that will drive positive change (Management Levers)
- Make this a group effort. People will own the issues and actions. Continue on a Regular basis (E.g. Safety Committee Action Items)
- Be Comprehensive in Approach (Training w/out enforcement won't work)
- Warning: Watch what you Measure (ex. # good performance reviews per manager)
- **DRIVE ACCOUNTABILITY and RESPONSIBILITY WITH LEADING INDICATORS**
- Continuously test, review and Adjust Indicators based on Results.

# What Do Leading & Lagging Indicators look Like? - Example

## Slip, Trip, Fall Program – A Restaurant Chain

- Engineering
  - Floor Design
  - Floor Condition
  - Signs & Warning
  - Maintenance and Cleaning
- Employees
  - Training
  - Accountability
  - Shoe Program
- Post Incident
  - Incident Investigation
  - Claims Management for Light/Restrictive Duty

# Importance of the Assessments

- Be the Facilitator—Don't Do It All
- Get Good Cross Section of Organization
- Power of the Employee Interviews
- Managing Expectations
- Using the Guidelines to Determine Next Steps



# How To Use the Results You Get:

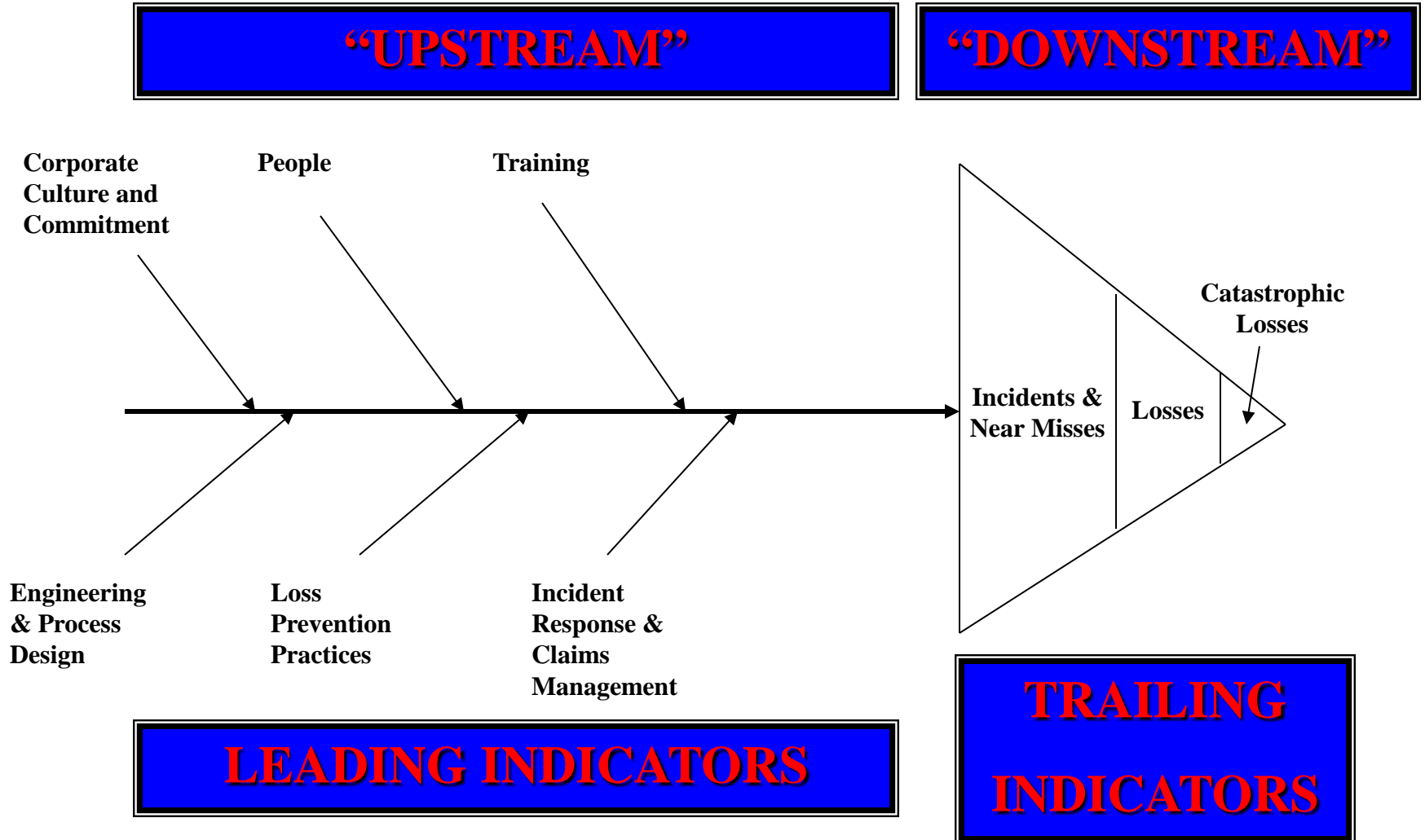
- Get Group Focused on Outcomes
- Build into Management Accountability
- Use in Chargeback Systems
- Correlate to Overall Results

# Summary of Key Concepts:

## Focus on Risk Management:

- **Quality Leading Indicators**
  - (Culture, Engineering, Training, etc.) to Drive Down Lagging Indicators (Incidents, losses, etc.)
- **Choose Leading Indicators Carefully**
  - Thorough Causal Analysis of Past losses and Potential Exposures
  - Choose indicators that will drive positive behaviors and improvements
  - Make sure they **correlate** to the lagging indicators
  - Be comprehensive in approach (training w/out accountability is worthless)
- **Be Practical**
  - Must choose approach that fits with work culture and needs of organization
  - Measure the “Big ticket” items – The ones that will cause the most change in lagging indicators.
  - Be outcome focused. (Change Employee Perception)

# Metrics Review: The “Fishbone” Theory:



# Resources:

- *Resource Guide for Employee Health and Safety Code. Program Performance Measures.* The Chemical Manufacturers Association. 1995.
- *Performance Indicators and Analysis of Operations Information.* U.S. Department of Energy. Order # DOE-STD-1048-92 . May 1996.
- *Industrial Hygiene Performance Measures.* American Industrial Hygiene Association. May 2001.
- *Analyzing Safety System Effectiveness.* Dan Petersen. Van Nostrand Reinhold. Third Edition, 1996.

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# QUESTIONS