



Performance-Based Safety©

Modern Measurement for Modern Times

CSHEMA 2006
Anaheim, California
July 15-20, 2006



Safety Measurement Rationale

“ If You Don’t Know Where You Are Going, Chances Are You Will End Up Somewhere Else” Yogi Berra

If you’re not keeping score, it’s just practice

Ronald D. Snee



Why Measure?

- In the absence of an adequate and appropriate measurement system, it's virtually impossible to (intentionally) improve 'any' business process, including safety performance.
- Measuring badly can be worse than not measuring at all



Establishing Performance Measures

Each organization must create and communicate performance measures that reflect its unique strategy.

Dr. Robert S. Kaplan, Harvard Business School

There is no one right way to do it. Each organization must determine its own "right way".

Dan Petersen: Techniques of Safety Management, 3rd Edition, ASSE,



History of Performance Indicators for OHS

Typical Measures

Conventional : Lost time injury rates, Frequency and severity rates, fatalities, first aid cases, etc.

("reactive" or "lagging" indicators sometimes referred to as 'safety statistics')

Modern: Performance to standards or benchmarks, positive measures of health and safety (ie: number of audits, scores of audits, behavioral observations, goals and targets achieved against those set, perception surveys)

Sometimes know as leading indicators

Leading Indicators (Upstream)

Leading indicators are the performance drivers that communicate how outcome measures are to be achieved.

Robert S. Kaplan and
David P. Norton,
The Balanced Scorecard





Why Leading Indicators?

- Although leading indicators are sometimes more difficult to define and measure, they provide a vital input to leaders in an organisation to assure them that complacency is being avoided and that continuous improvement is being sought.
- In very safety conscious organisations, a mixture of proactive and reactive indicators will be measured and trends followed with keen, but not impracticable targets set to drive improvement.



The Safety Scorecard

Using Multiple Measures to Judge Safety System Effectiveness

Occupational Hazards - 05/01/2001

- 1. The effectiveness of safety programs cannot be measured by the more traditional factors in successful programs (injury rates, etc.)
- 2. A better measure of safety program effectiveness is the response from the entire organization to questions about the quality of the *safety management systems*, which have an effect on human behavior relating to safety.
- "I cannot stress enough the importance of having a clearly identified H&S program against which goals can be established at all levels of the organization, and people held accountable for before-the-fact measures of injury and illness prevention."

(Gene Earnest, former safety director for Proctor&Gamble USA)



The Challenge



- Proactive measures are more difficult to set and measure, however organisations usually develop greater maturity in measuring performance as a result of such measures becoming progressively more of a focus.



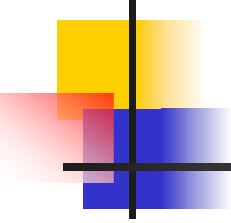
Consider: Variables that consistently relate to lower injury rates

A participatory management style and culture that includes:

1. Empowerment of workers in key decision areas
2. Autonomy and control over work
3. Encouraging the long term commitment of the workforce
4. Good working relationship between management and workers

An organizational philosophy on OH&S which includes

1. Delegation of safety activities to workers
2. Active participation of top management
3. Regular safety audits

- 
-
- Monitoring at risk behavior and worker/work practices
 - Having continuous and regular safety training
 - Employee health screening
 - Regular evaluation of occupational hazards
 - Good housekeeping, safety maintenance and controls on machinery

Does your safety management system characterize these variables?

Better still, how do you measure them?

And even better still, if you measure, how do you evaluate their effectiveness?



How did we get here?

Who do we have to convince to get where we want to go?

- Measurement of the performance of the OH&S management system consequently requires assessment of the process involved in the management system, rather than measurement of outcomes (such as incident and accident rates)
- “Management of outcome instead of improvement of the system is destructive and is considered tampering” (Mutzko, 1989)



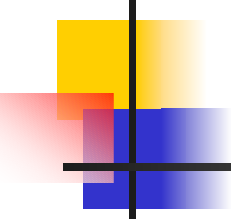
Basic Safety Performance Improvement Steps

- 1. Undertake a strategic planning session(s) to determine what you want to measure, why, and how that information will be used
 - 2. Structure and develop your performance measurement plan. . . what will you track and how will you track it?
 - 3. Establish measures, targets or other performance benchmarks or standards
 - 4. Measure, evaluate, react, feedback
- Determine improvements or recognition opportunities, if desired

How do you measure safety?

Don't just count injuries and illnesses

Kyle B. Dotson ISHN 04/30/2001

- 
-
- Focus on the effectiveness of the upstream processes put in place to control risk
 - There's power in measuring the process rather than just the results (defects, injuries)
 - This means measuring the effectiveness of management systems put in place to identify, assess, control, and continuously improve the risk profile of an organization

The Scorecard Approach

The trend today is toward multiple measures to assess safety system effectiveness



These usually include at least a balance of 5 measures:

- 1. The accident record
- 2. The audit
- 3. Perception survey results
- 4. Goals set compared to goals reached
- 5. Behavioral findings (**safe vs. unsafe work related behaviors**)

The Challenge



“If you always do what you’ve always done, you’ll always get what you’ve always got”

Other references:

<http://siri.uvm.edu/ppt/perfmeas/>

http://www.c2e2.org/news_items/performlist.htm

http://www.safetyxchange.org/article.php?id=244&cha_id=4