Trending: Monitoring and Measurement Expectations in Your Safety and Occupational Health Management System

Monitoring and measurement of your trend analysis processes aids the ongoing evaluation and improvement of your safety and occupational health management system (SOHMS). Identifying and understanding both positive and negative trends aid in gauging past and future safety and health (S&H) performance against organizational expectations and requirements. This one pager identifies what to monitor and measure so you can ensure your SOHMS is effective and continues improving over time.

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USE LEADING AND LAGGING INDICATORS TO MEASURE PERFORMANCE

Leading indicators are associated with the activities <u>predicting</u> how a system currently works and functions. For example, conducting the required number of safety inspections on time ensures compliance, identifies risks, and indicates your inspection process is an organizational priority. Effective indicators provide insight into the <u>future performance</u> of your SOHMS. Leading indicators allow for proactive SOH efforts at your organization.

Lagging indicators are the <u>result</u> of an activity. For example, inspections resulting in identification of numerous compliance issues could show you did not effectively control hazards and may be a result of a shortcoming in your inspection process. It reflects ineffective <u>past</u> or <u>current performance</u> of your SOHMS and S&H efforts. Relying solely relying on lagging indicators limits your organization to reacting to SOH incidents after they occur.

LEADING INDICATORS

Influence future performance

LAGGING INDICATORS

Measure past performance

Image created by CTC/DoD SMCX

When choosing indicators to include in your SOHMS, first look at each key S&H process and ask yourself: "What makes this process effective?" Work with management and employees to identify actions (measured by leading indicators) you believe help the process work as intended. Also, determine any outcomes or results (measured by lagging indicators) you believe demonstrate whether the process did work as you intended.



IDENTIFY WHAT TO MONITOR AND MEASURE

Each SOHMS model provides varying information to monitor and measure. Review your SOHMS criteria to determine specific indicators to include in your monitoring and measurement process (e.g., injury and illness incidence rates). Think about any other indicators you deem important to monitor and add them to your list. Key items to trend across all SOHMS models include, but are not limited to:

S&H goals and objectives	S&H education and training
Incident investigation results	Management of change processes
Employee participation and involvement	SOH in Procurement processes
Leadership engagement and commitment	Employee hazard reporting results
Periodic S&H inspections	Contractor S&H performance
Risk assessments	Occupational health services
Preventive maintenance schedules	Compliance programs
S&H resources	Emergency preparedness
Corrective actions and hazard controls	SOHMS audits or evaluations

DETERMINE HOW TO GATHER MONITORING AND MEASUREMENT DATA

Designate individuals responsible for monitoring and measuring the chosen performance indicators. For each performance indicator, determine the information necessary to monitor progress and measure results. Identify the processes, documents, data, measurements, or other information needed to effectively monitor progress.

Monitoring and Measurement Example – S&H Training Process

- Do we provide the classes or trainings employees require? Identify <u>number of</u> required trainings and whether we provided <u>all</u> required trainings to employees (leading indicator)
- Did employees comprehend training? Verify with tests or other exercises to <u>score</u> employee understanding of the training content and whether <u>all employees pass</u> (leading indicator)
- Did incident investigations determine lack of employee understanding? Review the <u>number of</u> <u>incidents with causal factors related to training</u> (lagging indicator)

How Often Should We Monitor and Measure Each Indicator?

Monitoring and measurement of S&H indicators is an ongoing process. Conduct monitoring and measurement as often as necessary to ensure processes remain effective. Monitor trend-related information throughout the year and, at a minimum, conduct annual (and consider quarterly) measurement reviews to assess SOHMS performance and identify S&H trends.

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