

How to Use Metrics to Measure the Effectiveness of Your OHS Program (and Actually Improve Safety)



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You can't improve what you don't measure.

That's why tracking the right metrics is essential for any Occupational Health and Safety (OHS) manager. But here's the problem: many organizations rely too heavily on lagging indicators—metrics that only tell you what's already gone wrong, like injury rates or lost-time incidents. By the time you're analyzing those numbers, the damage is already done.

So how do you measure safety performance in a way that actually helps you prevent incidents, not just report them? The key is using a mix of **lagging** and **leading** indicators to get a full picture of your OHS program's effectiveness.

Let's break it down.

Why Metrics Matter for OHS Success

OHS programs aren't just about compliance—they're about keeping people safe. But without hard data, how do you know if your program is actually working?

Metrics help OHS managers:

- Identify trends and potential hazards before they lead to incidents.
- Justify investments in safety initiatives with data-driven insights.
- Improve compliance by holding teams accountable.
- Build a strong safety culture by showing progress and areas for improvement.

The challenge isn't just collecting data—it's knowing **which** data to focus on.

Lagging vs. Leading Indicators: What's the Difference?

To truly understand your OHS program's effectiveness, you need both **lagging** and **leading** indicators.

Lagging Indicators: The "What Happened" Metrics

Lagging indicators measure past safety performance. They tell you what has already occurred but don't necessarily help prevent future incidents.

Examples include:

- **Total Recordable Incident Rate (TRIR):** The number of workplace injuries per 200,000 hours worked.
- **Lost-Time Injury Frequency Rate (LTIFR):** The number of lost-time injuries per million hours worked.
- **Workers' Compensation Costs:** The total cost of claims related to workplace injuries.
- **Fatalities and Serious Injuries:** The most severe outcomes of workplace hazards.

These metrics are useful for benchmarking and compliance reporting, but they don't give insight into **why** incidents happen or how to stop them.

Leading Indicators: The "What's Happening Now" Metrics

Leading indicators track proactive measures that reduce risk and prevent injuries. These are the **key to continuous safety improvement** because they allow you to correct course **before** an incident occurs.

Examples include:

- **Near Miss Reports:** Tracking situations where an accident almost happened.
- **Hazard Identifications:** The number of reported safety hazards before they lead to incidents.
- **Safety Training Participation:** The percentage of employees completing safety training on time.
- **Safety Observations:** How often supervisors and employees proactively identify and correct unsafe behaviors.
- **Corrective Actions Completed:** How quickly and effectively safety hazards are addressed once identified.

The more you focus on leading indicators, the better you can prevent serious incidents before they happen.

Choosing the Right Metrics for Your OHS Program

Not all metrics are created equal. To measure safety performance effectively, you need **the right mix** of leading and lagging indicators based on your industry, workplace hazards, and organizational goals.

Here's how to pick the right metrics:

1. **Align with Business Goals** – Safety isn't just about avoiding accidents; it impacts productivity, costs, and company reputation. Choose metrics that connect safety performance with broader business objectives.
2. **Make Data Actionable** – Don't just track numbers—analyze them. If a metric isn't leading to insights or actions, it's not useful.
3. **Engage Employees** – If frontline workers don't understand

or care about the metrics, they won't contribute to improving them. Keep the process transparent and collaborative.

4. **Keep It Simple** – Too many metrics can be overwhelming. Focus on a core set of meaningful indicators that drive real change.

How to Use Metrics to Improve Your OHS Program

Collecting data is one thing—using it to drive safety improvements is another. Here's how to turn safety metrics into actionable improvements:

1. Identify Trends and Problem Areas

Look for patterns in your data. Are near misses increasing in a specific department? Is one type of incident happening more frequently? Identifying trends helps you focus your safety efforts where they're needed most.

2. Set SMART Safety Goals

Use your metrics to establish **Specific, Measurable, Achievable, Relevant, and Time-bound (SMART)** goals.

Example: Instead of saying, *"We need to reduce injuries,"* set a goal like, *"Reduce hand injuries in the manufacturing department by 20% over the next six months by increasing glove compliance and training."*

3. Act on Leading Indicators

If employees are reporting more hazards or near misses, don't just file the reports—take action. Investigate trends, implement corrective measures, and communicate improvements to employees so they see that their reports lead to real change.

4. Measure the Impact of Safety Initiatives

Did your new training program reduce incident rates? Are employees engaging more with safety reporting? Track how

specific initiatives impact key safety metrics to determine what's working—and what needs to be adjusted.

5. Make Metrics Visible and Transparent

Share safety performance data with employees and leadership in a way that encourages participation. Dashboards, safety scorecards, and regular updates help keep safety performance top of mind.

Common Pitfalls to Avoid When Measuring OHS Performance

- **Focusing only on lagging indicators** – If you only track injury rates, you're always reacting instead of preventing.
- **Ignoring employee feedback** – Safety performance isn't just about numbers – frontline workers often have the best insights into what's really happening.
- **Using metrics to blame rather than improve** – The goal is to identify risks and solutions, not punish workers for reporting hazards or incidents.
- **Not acting on the data** – Collecting safety data without taking action is worse than not collecting it at all.

Final Thoughts: Turning Data Into a Safer Workplace

Metrics aren't just for reports—they're tools for **building a proactive safety culture**. By balancing leading and lagging indicators, setting clear goals, and taking action based on your data, you can move from **reactive** safety management to **preventive** safety leadership.

The bottom line? **Measuring safety performance isn't about tracking failure—it's about preventing it.** When used effectively, metrics can help OHS managers not just report on safety but actively improve it.

So, are your safety metrics helping you prevent incidents—or just counting them after they happen?