

# The Problem with ZERO Goals and Results

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I've been doing a great deal of thinking and writing about the variety of associated problems with using injury data to support the belief that low injury/damage results equate to a corporation being safe. The truth is that very safely operating companies have very low numbers of injuries and other unintended negative results. This is indeed something to celebrate. No-one being injured or becoming ill from their work is a wonderful result. As this two part article will describe, there are a few nagging and logical problems with automatically linking the result of low injury/illness/damage numbers to providing evidence that the work that was done during the period of measurement was done safely.

Don't get me wrong, I'm always happy to help celebrate when a client calls to have me be part of their celebration of low or even zero injuries. In fact, I'm typing this article while I sit on a bus waiting to leave for one of the Northern Alberta oil and gas employer's sites where I'm going to do a presentation during their celebration of working a very long time without anyone experiencing a lost time injury. I will cheer with them happily over their accomplishment.

So before we get too involved in the celebration of low numbers as proof that these people were working safely, let's explore the many problems with using those outcome measures to demonstrate a safe operation. There are two major areas of question and discussion: 1) Are all incidents/injuries/spills and/or other unintended negative outcomes preventable? 2) Does Zero incidents/injuries/spills and/or other unintended negative outcomes mean that during the period of time measured, that the work was done safely? The article will describe many problems with these two "safety standard" mantras.

## PART ONE

### All Incidents/Injuries/Spills and/or Other Unintended Negative Outcomes Are Preventable

#### 1) The Problem with Absolutes

The moment a human utters an absolute, they are immediately wrong. Nothing in our history of human behaviour or experience has been proven to be 100% true or 100% false. If you don't believe me, try to find it yourself. What will happen is you will (for the most part) find exceptions to any absolute you can think of (notice how I avoided the absolute). That's not necessarily a bad thing, except if you are stating an absolute. So Zero and 100% are simple not logically

available to us as targets or future visions unless of course we are prepared to be disappointed in never reaching our goal/vision.

In Safety Management, the tradition is to measure injuries and negative results as an indication of our success. This is not a reliable measure of the existence of safety. If you reflect on your own experience, there have been many times where you have taken unnecessary risks and not paid the price with unintended results (injury or loss). Even if Zero Harm/Injuries/Accidents is accomplished for a measurable period of time, it doesn't offer proof that the people accomplishing it have done their work safely. It is clearly NOT a good measure of safety as a feature of our work or play. Working and playing in a manner that doesn't put us at unnecessary risk could be seen as working or playing safely. It really is no more complex than that...It will never be 100% but these factors can be managed in a way as to produce highly predictable positive outcomes!

## **2) The Problem that the Reality of Risk Creates on Zero Goals of Any Kind**

Anticipate, Evaluate then Control are the three proven steps to hazard management. The key feature is to provide appropriate controls based on what you anticipate could happen that you won't like as an outcome. The multiple factors that go into a careful evaluation of risk are, at best, an educated guess. There is a predictable possibility that sometimes we will be optimistic about our risk management solutions and unaware of an unknown factor that won't become apparent until the negative outcome happens. Other serious deterrents to 100% preventability of all negative outcomes are the limited resources of time and money. Every organization and company has a defined amount of resources. These limits make ALL impossible. ALL would require super human insight into the future and unlimited resources to address every possibility no matter how unlikely. This would actually cause paralysis by analysis. No work would ever get done. We'd be too busy preventing all the possible hazards and spending all our resources and making mistakes impossible. ALL therefore is illogical.

## **3) The Problem of Manipulated Results to Meet the Impossible Goals/Visions**

People tend to want to give the boss what they want. Zero results are often accomplished by manipulating the data. Reclassification of Injury types is a classic example of hitting the target by hiding serious injuries as non-serious by accommodation of the injured worker...so they don't show up on the stats!

## **4) Humans are Perfectly and Predictably Imperfect**

Humans have proven themselves to be consistently and historically imperfect in their actions and thoughts. To add this imperfection to any formula of variables which will lead you to the conclusion that all incidents/harm/accidents are preventable is illogical and mathematically impossible. So you can say "ALL imperfect outcomes are preventable"...but you'll be wrong. Humans are simply and perfectly "imperfect".

## **5) Risk and Imperfection is Certain**

The simple logic is that if two or more unpredictable factors meet...the results will be unpredictable

When human behaviour meets certain risk (as Dr. Robert Long so correctly states in "Risk Makes Sense") the outcome will be imperfect. How can anyone resolve for this puzzle that all unpredictable negative results are preventable?

## 6) ALL Incidents Can be Prevented...Really?

Hindsight is perfect...our ability to predict the future is not. So I believe that all incidents can only be prevented after they have the insight gained by investigation. We seldom have this insight prior to the incident. If you have that kind of insight you should leave the safety business and PLAY the STOCK MARKET! See you on your own Pacific Ocean Island. We need absolute insight into the future and absolute control of events as they happen to prevent all incidents...we have none of that. The Safety Profession has to be the only profession debating "perfect", "zero" and "all". Other professions (medicine, engineering, law, even astrophysics) would never dream of using these kinds of absolutes in any discussion about humans and/or physical things. How we get (Certain Risk) + (Fallible Human) + (Unknown/Uncontrollable/Unanticipated Factors) = (Absolute Preventability) is certainly beyond me.

All of this logic leads directly into our next problem. The ZERO issues. There are many. From leaders in an organization "visioning" such a future and linking it to a "safety" goal, to the natural tendency of humans to try to accomplish the goal set out for them which leads to manipulations and "reclassification" of injury/damage data. More about these issues in Part Two of this article...until then...strive for safety excellence since safety perfection isn't really available to you.

## PART TWO

In the last issue, Part One of this article explored the illogical nature of the position that "All Incidents/Injuries/Spills and/or Other Unintended Negative Outcomes Are Preventable". In Part Two we'll explore the false belief that zero makes a good safety target...

**Zero incidents/injuries/spills and/or other unintended negative outcomes mean that during the period of time measured, that the work accomplished was done safely.**

### 1) The Problem with Zero Visions/Goals/Commitments

Much has been written and debated about Zero Harm/Injuries/Accidents. Many questions and emotions come to the surface when discussing the natural moral desire for humans to do work without the unintended result of injury/damage to people, property, process and/or the environment. Wanting people and our possession undamaged by following our designed processes is a logical desire.

Let's take a logical approach to this challenge for what some suggest is absolute perfection. What are we going to do to create the future where no-one is hurt doing their work. By the way, I truly believe that stating anything "absolutely" creates an impossible scenario. "ALL, Zero, Every" are examples of words that have been demonstrated as impossible in the human experience. Exceptions ARE the rule in every form of science and human experience. Nothing in human experience has proven ourselves to be perfect performers of anything. So we must conclude from the overwhelming evidence that we humans are fallible. We can be excellent, superb, and outstanding but perfect is not really available to us, even if we believe it's possible, it is not. It can be tested and replicated in the workplace and in the laboratory. Humans make mistakes. It's part of our very nature. It is indeed responsible for our very evolution in knowledge and skill. We can explore a bit more on mistakes later in the article.

## **2) Lofty Goals Do Not Increase the Chance of Lofty Accomplishment...Hard Work and Diligence Does**

There is no scientific evidence that supports the causal relationship between the level of challenge of the goal and the accomplishment of the goal. In fact, there is an increased chance if the goal is impossible that you will have predicted the impossible future. Grand statements of intent do not directly correlate to grand accomplishments. CEOs and other leaders setting “stretch objectives, visions and/or missions” for their corporations do not in any way increase the chances of accomplishment. Doing the hard work necessary to increase the possibility of an outcome does increase the chances an outcome will be realized. Peter Drucker said it best, *“The best way to predict the future is to create it.”* Please note he didn’t say “talk about it.”

## **3) The Problem with the “Believe or You Can’t Make It Happen” Pressure Tactic**

There is absolutely no science to the false statement that if you don’t believe in something that the results won’t happen. There is no doubt that believing in efficacy (the effectiveness of a process) increases the desire to do the tasks related to the desired results. I don’t believe that humans can “prevent the unanticipated”. That doesn’t mean that I believe we can’t manage the many factors we CAN anticipate. Saying and believing that ALL incidents can be prevented does not increase human capacity to be error-free nor does it change the reliability or strength of the physical things at our places of work. Failures will happen. In fact every human manufactured thing has a breaking point. Some have been scientifically designed and tested, some haven’t. Either way, nothing is unbreakable. Until humans doing activities to reduce and manage harmful energies makes a place safer, our belief has nothing to do with accomplishing a zero outcome.

## **4) The Problem of Measuring the Absence of Something as Proof of the Existence of Something Else**

Rarely in our human experience has a Zero result meant anything else but for the measured time that the result wasn’t experienced. For example, measuring the number of collisions at a particular group of intersections for a set period of time could get you data that shows that there have been Zero incidents at those intersections. To conclude that the data means that the drivers at those intersections have accomplished the outcome because they were “safe drivers” is a major problem in logic and a total fabrication of causal relationships of factors. It’s almost guaranteed to be a wrong conclusion. It “could” be that they we are safe or it could mean that during that period of time we had a lot of lucky drivers or as I often say...good duckers. These drivers could be behaving unsafely but through good fortune were not feeling the negative consequences their unsafe driving could have resulted in. It is very bad science to use Zero results as proof of the existence of safe work. Creating causal relationships where none exist is harmful to credibility. Leaders suggesting that Zero = Safe are clearly misinformed. Therefore, Zero cannot and should not be used as a safety goal.

This historic misuse of injury data to demonstrate the existence of safety is akin to claiming that because you go to a General Practitioner annually that you will be healthy. As proof you haven’t been sick all year! The two sets of facts coexist in time but it is extremely poor science to create a causal relationship between your annual Doctor visits and your positive health outcome. It’s just as unfortunate that we have historically linked the lack of injury to our safety goals. No injuries experienced during any time period does not prove anything except that you haven’t had any injuries (of a particular type...which is back to the original topic of the thread).

If we want to prove the existence of safety we need to measure and report the...wait for it...it's logical and inspiring...it's doable and scientifically sound...are you ready..."the existence of safety".

If Dan Petersen was right we wouldn't use Zero at all. He wasn't a fan of using injury statistics to prove anything...a couple of my favorite Dan Petersen quotes...

*"Measuring health & safety success by measuring injury claims is like measuring how successful your car trip was by counting how many miles you DIDN'T drive."*

*"Of course you can use frequency-severity figures to measure your firm's safety program, as long as you realize that in almost all instances these figures are absolutely worthless."*

### **5) The Problem with Visions Based on Beliefs and Not Facts**

To believe something does not make it more likely. Believing in the existence of unicorns does not make it more likely that you will run into one in the local zoo. It doesn't work for unicorns and it doesn't work for Zero incidents/injuries/harm/environmental spill or anything else you don't want to happen. Lotteries work the same way...if belief did it many more millionaires would have been created by a great deal of "wishful thinking". In risk management "wishing and hoping" isn't very functional. It certainly doesn't work for the statement that all injuries/accidents are preventable. The facts are that this is not true...believe it or not!

### **6) The Problem with "If You Don't Believe in Zero You Must Want to Hurt People"**

If Zero is possible and Zero means "safe" then logically 100% safe is possible...isn't it? This simply is not true. Being realistic based on the evidence does not make you a bad person. Nor does it make you evil. I don't believe in perfection as a human possibility. That being the case, some human will with certainty make some mistake that wasn't anticipated and the result may be their injury or death. This is reality based on many hundreds of decades of evidence. Reality isn't wrong...the theory that ALL can be prevented is the error. Stating a logical conclusion only makes you a logical thinker. Stating things that are impossible and illogical makes you sound like a beauty queen contestant that will eradicate world hunger if she gets the chance.

The power of positive thinking is that it feels good. Nothing more, nothing less. Feeling safe doesn't reduce hazards nor the damage that they can cause.

### **In Conclusion**

So there you have it...Zero Harm/Injuries/Accidents sounds good...it is just illogical and impossible...so please think of another way to communicate your company's commitment to working safely.

As an example of what is better than a Zero injury Commitment why not try something like the following?

*Our Company will strive to do our work in a safe and healthy way. We will use our knowledge gained by our experiences to constantly improve our behaviours and processes to ensure safety excellence in our work. This we can accomplish and will get us exceptional results.*

The links humans have made to the “lack of injury” being equal to “working safely” is a HUGE error in logic. That’s why Zero simply doesn’t work as a safety process goal or measure. It is indeed meaningless.

Of course we’re all happy if no-one is injured or killed...but it certainly doesn’t mean anyone was safe. It could demonstrate that a group of humans did their work processes without unnecessary risk and that they were managing their risks in an intelligent and thoughtful way...but it could also mean that they were good “duckers” and were lucky enough to get out of the way of harmful energy!

As proof, the next time you stop to talk about an unsafe behaviour with an older worker...don’t be surprised if the worker tells you what they are doing is “safe” because they have been doing it for YEARS without injury.

A replacement of measuring what doesn’t happen to group of humans (injuries) is the gathered evidence that you are working “safety” through observation and discussion. In this context, working safely means “without unnecessary risk.” Risk is, as this article suggests, certain. Working in a “managed risk” way is clever, achievable and measurable through observation. It will also give you the predictable result of very few injuries. The best part of this is when a company celebrates creating safety, there will be no-one in the room knowing that they got there by hiding injured workers in the “light-duty” tool room or reclassifying severity by accommodation to reach the ZERO goal.

So there you have it, the logical side of the debate. Feel free to email me your emotional responses if you’d like to share your thoughts and feelings. For goodness sake, if you’ve discovered a logical argument for “Zero Targets” or “All Incidents Can Be Prevented” please send to me your evidence and a description of the logical process used to demonstrate the position...so far in over three decades I haven’t run across any.

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