

INDUSTRY:
Chemical

SOLUTION:
SafetyDNA® Development Program

Understanding your SafetyDNA Reduces Recordable Injuries

Authors: Esteban Tristan, Ph.D., Christopher Klinvex, MBA, Matthew O’Connell, Ph.D., & Alli Tenbrink, M.S.

THE CHALLENGE

From 2010 to 2012 OSHA recordable incident rates have essentially plateaued with a reduction of less than 3% over that time period. In addition, according to the DOL, more than one-half of the 3.0 million private industry recordable cases were of a more serious nature that involved days away from work and job transfer or restriction.¹ In 2012 these occurred at a rate of 1.8 cases per 100 full-time workers, statistically unchanged since 2009. Traditional safety initiatives that focus on training, policies, and engineering are having some impact, but they are not enough if your ultimate goal is a *Zero Harm* workplace.

A critical flaw that safety initiatives make is they approach safety from a technical perspective rather than a personal one. No one asks the simple question which is, “Regardless of training, are certain individuals innately safer than others, and if so, why?” Intuitively we know the answer is *yes!* Yet, more importantly, now there are scientific data to show how vastly different individuals are in terms of the psychological traits, known as **SafetyDNA**, which are most closely related to exposure and at-risk behavior. By understanding one’s SafetyDNA, individuals become proactive in reducing their risk for injury.

Traditional safety initiatives that focus on training, policies, and engineering are having some impact, but they are not enough if your ultimate goal is a ZERO HARM workplace.

THE SOLUTION

SafetyDNA Development Program is a *powerful* safety culture solution that accurately assesses individuals’ SafetyDNA. Once assessed, individuals then experience the workshop to learn about the traits that make up their SafetyDNA. Through this process, participants become increasingly aware of how these safety traits serve to reduce or increase their exposure to risk. The workshop is experiential, meaning participants quickly learn through simulations how differently they respond to exposures and, most importantly, how this impacts the likelihood of them being injured. After the workshop, participants go through brief coaching sessions to receive their specific SafetyDNA results from a certified coach. In that session, they learn about their personal Safety profile, explore their exposures at work and focus on actionable safety behaviors that will directly reduce their risk. What makes this personal safety program effective is its simplicity and focus on each individual having unique SafetyDNA.



¹U.S. Department of Labor, Bureau of Labor Statistics, News Release, November 7, 2013 USDL-13-2119.

THE STUDY

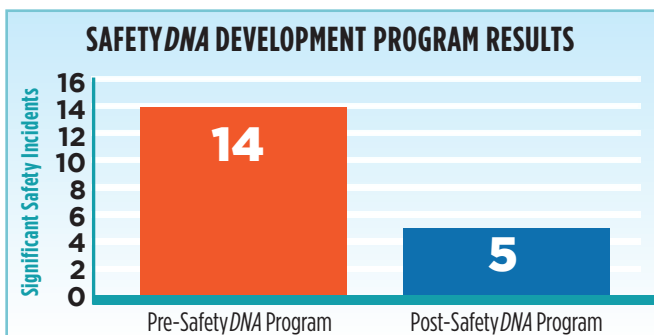
This study was to evaluate the effectiveness of the SafetyDNA® Development Program in reducing significant safety incidents. Significant safety incidents included OSHA recordable injuries, off-site doctor visits, property damage and motor vehicle accidents.

The SafetyDNA assessment was given to 898 employees at a large chemical processing facility in the U.S. Those employees then participated in a workshop and went through personal coaching sessions. This entire process is referred to as the SafetyDNA Development Program. Safety incidents for each person were recorded three months prior to and three months after the personal coaching sessions.

OUTCOMES

The chart below shows the total number of significant safety incidents pre- and post-SafetyDNA Development Program. There was a **64% reduction in significant safety incidents** during this three month pre-post period for the individuals who participated in the SafetyDNA Development Program.²

During this time period, there were no significant changes in the type of work conducted, supervision, policies and procedures, ergonomic, or environmental changes. Nonetheless, these individuals experienced 64% fewer significant safety incidents in the three month period immediately after the SafetyDNA Development Program. Moreover, when we compared employees in high versus low risk jobs, the results were nearly identical.



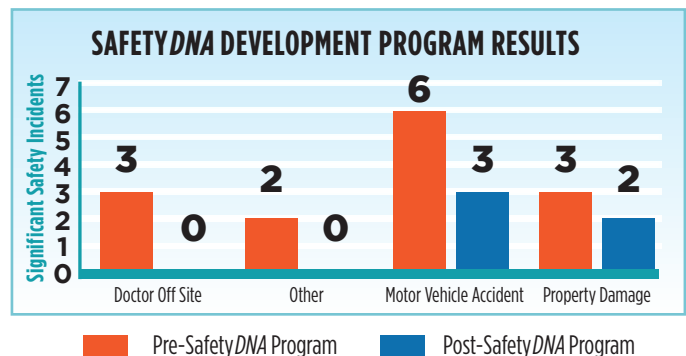
² This is a statistically significant ($\chi^2 = 3.84$, $df=1$, $p < .05$) difference.

A reduction in injury rates of this magnitude is not simply statistically significant, but most importantly, people we care about have learned how to reduce their exposures and, therefore, likelihood of injury.

According to OSHA, the average direct cost of a recordable is approximately \$46,000. Using OSHA's estimates these nine fewer significant safety incidents amount to a direct savings of \$414,000. Considering the indirect costs associated with such incidents could raise that figure by a factor of four.

First aid incidents were also tracked in the study, with little change pre-post intervention. We currently are researching this aspect of the study further. Thus, while the program did not have a significant impact on minor incidents, it did have a dramatic effect on serious injuries.

The chart below breaks out significant safety incidents by type. As the chart shows, every category of significant incident type decreased after participation in the SafetyDNA Development Program, including a 50% decrease in motor vehicle accidents.



SUMMARY

The results of this study provide compelling evidence that understanding your own personal SafetyDNA, and receiving targeted coaching has a dramatic impact on personal injuries. Organizations striving for a *Zero Harm* environment, understand that personal safety *first* starts with the person and their unique SafetyDNA.