

Managing Risks Requires Understanding Hazards and Changing Behaviors



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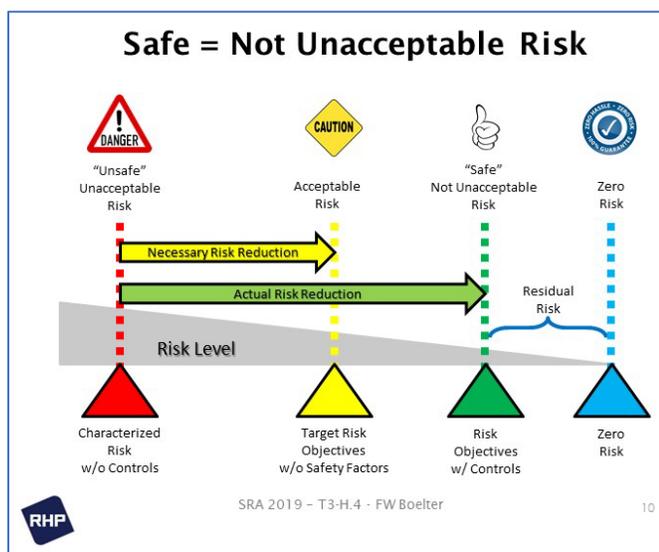
Making (some) sense of risk management decisions

Why is managing risk so difficult when that which seems risky also seems so obvious to need management? Dr. Paul Slovic, a contemporary of the famed psychologists Amos Tversky and Daniel Kahneman, explained,

“Risk does not exist “out there,” independent of our minds and culture, waiting to be measured. Human beings have invented the concept of risk to help them understand and cope with the dangers and uncertainties of life. There is no such thing as ‘real risk’ or ‘objective risk’”.

The dilemma of choice raised by hazards and risks (which should not be confused as one in the same) is a concept traceable in Greek mythology to *Scylla and Charybdis*. Fundamentally, ‘risk’ means different things to different people and thus by the same token, ‘safe’ does not mean ‘zero risk’. Something that is obviously ‘safe’ may not be obviously so to everyone. ‘Risk’ and ‘safe’ are judged retrospectively; and will continue to be many decades later long after the benefits and context were forgotten.

When making decisions in managing risk, clearly defined objectives and outcomes are critical to be understood right from the beginning of the risk analysis. Remember, Dr. Slovic’s explanation of risk encompassing two aspects, one is the technical gathering of data and information to be analyzed and compared against criteria. The second aspect is emotional and not so easily defined. What can be clearly seen in the swirl of COVID-19 information, some authoritative and some misleading, is that there is a flow of both technical analysis and emotional response exacerbated by dread. With COVID-19 there are those pesky and prickly “known unknowns”. It is not possible to analyze risk, examine options, and make transparent decisions just on an emotional response, gut instinct, or ideological priors (a nod to Bayesian statistics). With every impending decision, risks will be transferred elsewhere, new risks will be created or there will be residual risks, and there will always be unintended consequences.



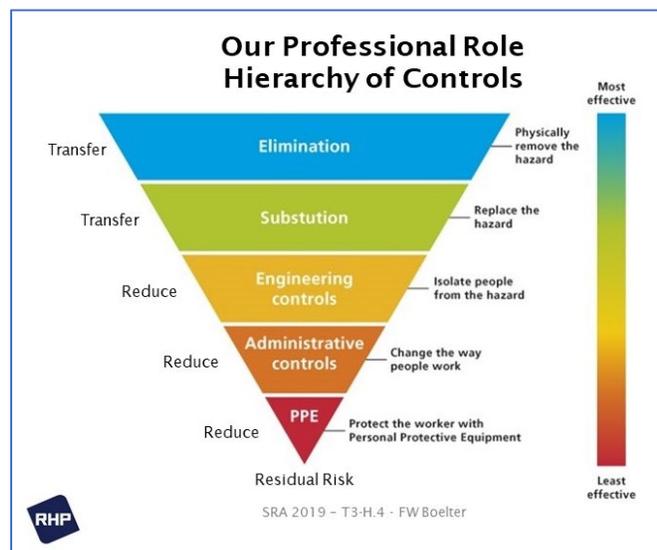
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None of this is easy. When managing risks, the intended outcome and objectives drive decision-making. Is the objective to save lives? Is the objective to save an economy? Shouldn't it be "both and" rather than "either or"? What we are finding with COVID-19 is that it is easier said than done? Humans don't always get to establish the timeline or costs to meet the criteria.

What can be learned from the Industrial Hygiene profession?

There's much to be learned from our point of view in the occupational arena. Our industrial hygiene profession is fundamentally a risk characterization and management profession that finds safe ways for people to work with hazards. That is what we do, in order that products can be manufactured and workers can go home healthy to their families. Our profession has been evolving for decades and adapting skills in response to the changing nature of industrial production, the gig economy, an expanded contingent workforce, working remotely, just to name a few demanding drivers of change.

Preventing acute injury has always been a relatively easy risk analysis and management decision by comparison to preventing chronic disease. We can see this "logic" regarding the slow COVID-19 ramp up that resulted in lost weeks or unutilized months of preventive measures. 'Nobody in the United States' was apparently showing symptoms or the confirmed cases were confined to only small areas. And so knowledge about COVID-19 was limited, data was lacking, and the existing pandemic response plans were not implemented because of a political rather than scientific basis. It is impossible to conduct a risk assessment without reliable data and it is impossible to characterize risk and respond to a pandemic if the proper tools are not available; often erring on the side of "too much is too little too late". In the Industrial Hygiene profession, we have a Hierarchy of Controls that from top to bottom are most-effective to least-effective, in terms of risk reduction.



With COVID-19, Elimination and Substitution are not options. Mother Nature makes those choices.

But Engineering Controls such as vaccinations, fast analyzers, and the cleaning of surfaces are helpful. Administrative Controls include social distancing and self-quarantine, demanding behavioral change. Personal Protective Equipment (PPE) is always the least effective control and for COVID-19 this includes masks and other protective gear as well as ventilators which are the last line of defense for patients suffering respiratory failure. An ultimate reliance upon PPE means more effective controls failed for any number of reasons.

What can be learned from History?

First let's ask, why is it so difficult to learn the lessons of history? At one time or another, weren't we all required to read Greek mythology? Who started Industrial Hygiene and why? When and why was the US Public Health Service started?

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Nothing tends to focus the mind so clearly as a crisis. Pandemics of the past have made clear that the famous plagues were indifferent to the boundaries erected by society, and their appetite was ravenous. History does not defy death; it re-endows death with meaning and specificity. Indiscriminate plague should remind us of our shared humanity. Perhaps our misery now, as in Shakespeare's *King Lear*, will help us see the meaning in the lives of others. We may only hope.

Ever since the beginning of the Industrial Revolution, the industrial hygiene field has been focused on prevention of injury and disease rather than reacting to outcomes. A paradoxical challenge perpetually confronting decision-making in managing risk is whether the cost of prevention is justified for the avoidance of a future catastrophe. It may seem like the obvious answer is, "of course we should prevent bad things from happening at any cost" but think of all those actions people take every day for which there are known risks but we do them anyway. What if those bad things never happen and all that happened was to 'waste' money on speculative prevention? ...or so goes the argument.

Perhaps an alternative way of considering this question will be, retrospectively, through the lens of COVID-19: Was the cost of necessary global overreaction worth not having spent considerably less to be prepared for minimizing the impact of a pandemic? There have been plenty of near misses thrown at humans by Mother Nature. Scientists and politicians alike have known that something like COVID-19 was going to happen; we just did not know when. The cruelty of COVID-19 is in looking back and seeing all the missed opportunities to be ready.

This is not a time for blame to try and score political points, but rather a time for action and preparation for a time in our future history "when we no longer have to be fearful".

Looking toward brighter days.

History is a teacher and we can and should learn from the past. If COVID-19 is a war, it too will eventually end. What is the recovery plan, to be assayed when the war is over? Even before the end of WWII, the Bretton Woods Agreement of 1944 established a monetary plan; and, after the war, the Marshall Plan of 1948 would rebuild the economies and spirits of western Europe. A global effort was undertaken on the part of leaders who focused on a common nonpartisan cause; on a more democratic, interconnected world open to new ideas and shared success.

But it is important to remember that the world prior to WWII was a different place than post-WWII. We need bold visionary leaders who care about the viability of Earth and all its creatures, not just the politics of reelection.

Would it not be a mistake to miss this post-COVID-19 opportunity? Would it not be a mistake to pretend COVID-19 did not happen and the sacrifices in life and money did not matter? Would there not be value to seeing this pandemic as a wake-up call – rather than simply an individual event landing somewhere on the spectrum of personal "annoyance-to-tragedy" – and globally consider courses of action beyond "return to business as usual" pre-COVID-19?

There are big topics and issues facing human health and global survival. If workers, the public, and the environment are not healthy, the economy cannot function and societies collapse. Big topics include sustainability, product stewardship, limited natural resources, human population growth, biospecies loss, just to name a few.

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Perhaps this is a “never before” moment of opportunity? An opportunity to strive not for business as usual, but rather boldly think through decisions in managing risk options to prevent yet another costly future disaster.

Prevention of future disasters requires S.T.E.A.M., honesty, and trust to:

1. Change awareness
2. Change behavior
3. Improve wellness
4. Change laws
5. Have the political courage to improve the quality of our planet

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At RHP Risk Management, we help our clients characterize the uncertainties associated with environmental and occupational hazards and risks to contextualize meaning that can be understood by their decision-making audiences be they the public, employees, consumers, regulators, or shareholders.

For more resources concerning COVID-19, visit www.rhprisk.com/coronavirus/