

STANDARD DEVIATIONS: Risky Business

Greetings,

How well do we understand risk?

Turns out that as smart as we may think we are, our feelings don't "do" math. Reality and perception are worlds apart in how we see and practice risk awareness.

COVID-19 is a great example; but it ain't the only one. We confuse risk all the time. In an environment where risk means harm (like clinical laboratory science), we should be careful about how we measure and respond to risk.



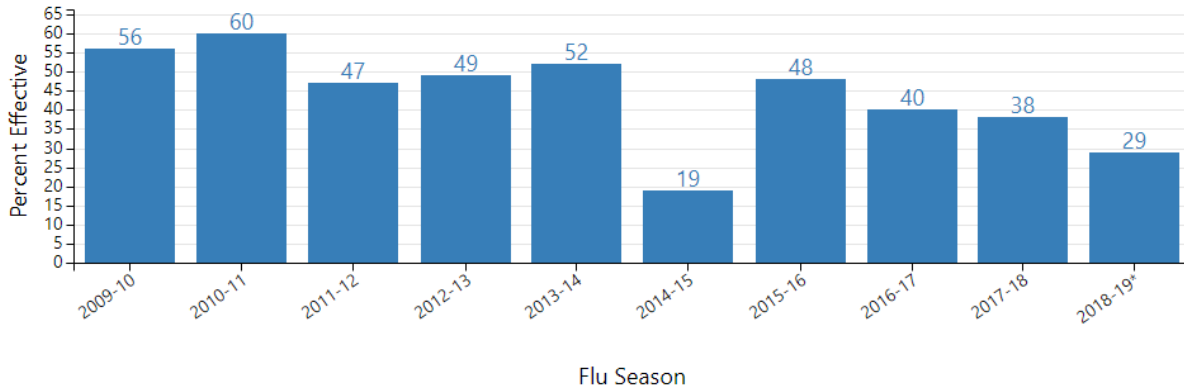
{Diff rent strokes?}

Last year 35,000 US citizens died from influenza. The year before it was 61,000! Worldwide, half a **BILLION** people will die from flu every year. There have been no US deaths from COVID-19 in the US and less than 1,500 across the globe. Which one are you worried about?

Even with a robust vaccine and a saturating campaign of public engagement, tens of thousands get influenza, and die. And, let's face it, the vaccine isn't all that great. Here's proof.



Seasonal Flu Vaccine Effectiveness



{CDC numbers, folks}

But we all (well, you and I) take it and think we're suddenly invincible. Except we get the flu and the guy across the bench gets the flu, and the courier has flu, the cafeteria server has it, and your kids classmates get flu, and ... you see where this is headed.

Yet all we can talk about is coronavirus.

Answer this: "Which is deadlier, a nuclear power plant or coal-fired generator?"

When the partial meltdown of Three Mile Island nuclear plant occurred (1979), our national response was to embrace fossil fuels. Guess which killed ZERO and which kills millions every year. Both are risky; one's worse than the other for public health.

Automobile accidents kill 40,000 American each year, even with seatbelt laws, highway alert systems, law enforcement and driver licensing and education as risk mitigation.

Alcohol? Tobacco? Opiates!? Don't get me started.

Risks that we take on voluntarily, or that at least feel voluntary, are often seen as less dangerous than they really are. We raise our threshold for danger.

The psychological tricks we play alter our understanding of risk. Experience, novelty, instinct, and self-projection influence how we accept risk.

The uncertainty of COVID-19 creates a fear that supersedes our understood knowledge of influenza. We shrink from the new threat and shrug at the larger. Our first, knee-jerk, reaction to an outbreak is to worry "Am I in danger from this new disease?" when, in fact, we're already at risk from bigger threats.

The mind has its own ways of measuring danger. COVID-19 hits nearly every cognitive trigger we have. That's okay! It's losing sight of the risks we already know that endangers us. The risk assessment you perform in your brain overwhelms the one you can see on paper, or in statistics.



In my biosafety gig, I can preach and preach about being risk aware and safe on the job. We take that lecturing with a grain of salt. The emergence of a virus halfway around the world drives the message home in an instant.

Alarm and panic followed by complacency, apathy, and casualness is consistent with our safety awareness for as long as we have been working with infectious materials.

Laboratory and healthcare workers are at the forefront of risk and exposures. Spanish Flu in 1918 should have woken us up. Hepatitis ought to have been an alarm. HIV startled us and now we seem to have hit the snooze button. Ebola? SARS? Lassa Fever? All these pose potential for lab acquired infections. We should recognize and mitigate risk wherever it exists.

As the COVID-19 virus becomes a bigger and bigger scare in our sphere and we start seeing cases and testing orders and potentially infectious specimens, will we go through the same cycles? Probably, but I'll still be worried. Risk in the laboratory is real and present, right now. I encourage everyone to practice their craft as safely as possible.

Have a great week and be safe,

Bryan

