

Risk and Uncertainty Once Again

About two years ago (May 3, 2020) Your Blogger (YB) wrote a [piece](#) on risk and uncertainty. Economists often use the two terms interchangeably. At the time, we did not know how COVID-19 was being transmitted, much less what the “odds” of getting it were. YB argued that we were seeing uncertainty rather than risk, with no good odds as to the probabilities of contracting COVID or living through it.

Two years later, with over one million Americans dead from COVID-19, epidemiologists are still grappling with risk. In a carefully nuanced article, journalist [Benjamin Mueller](#) writes “Like it or not, the choose-your-own-adventure period of the pandemic is upon us.”

Epidemiologists measure probability of dying with micromorts, where one micromort represents an estimated one-in-a-million chance of dying. The table below provides a set of comparisons to the probability of dying from driving for a year, which is 100 parts per million. Driving 250 miles in one trip is one percent as likely. Using heroin is 197 times as likely.

Comparative Risk of Dying

Risk of dying from activity	Micromorts	Ratio Compared to Driving One Year
Flying commercial 7,500 miles	1	0.01
Driving 250 miles	1	0.01
Motorcycling 25 miles	4	0.04
Scuba diving	5	0.05
Running a marathon	7	0.07
Skydiving	10	0.10
Anesthesia	10	0.10
Driving one year	100	1.00
Giving birth	210	2.10
Base jumping	430	4.30
Commercial fishing	1,020	10.20
Active service in Afghanistan, 2011	5,000	50.00
Baby's first year of life	6,600	66.00
Climbing Mt. Everest	12,000	120.00
Using heroin for one year	19,700	197.00

From The *New York Times* | Sources: The Norm Chronicles, by Michael Blastland; Estimating Everyday Risk, by Hannah A.D. Keage and Tobias Loetscher

Source: <https://www.nytimes.com/2022/04/17/science/covid-risks.html>

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Not surprisingly, the odds vary according to personal circumstances. Younger and healthier people have lower odds. Older and immunocompromised people have higher ones. Those with good access to good healthcare do well. Others, without such access, do not do as well.

The major problem with current measurements is that (yet and still) we do not really know how much “bad stuff” is out in the air. Think of a lake into which bad chemicals run off from hundreds or thousands of sources. If we are not measuring how much is running off, and seldom measuring how much bad stuff is in the lake, people could get sick from swimming or drinking water that looks to be safe, and those who are immuno-compromised could get sicker or die.

This seems to be happening with COVID-19. Mueller reports that as of late February, 7 percent more Americans were dying than would have been expected based on previous years — a contrast with Western European nations like Britain, where overall deaths have lately been lower than expected. So, unlike two years ago, we know the risk factors, but we don’t know how high they really are. This is not run-of-the-mill flu. Biostatistician Lucy D’Agostino McGowan of Wake Forest University states, “We’ve never seen flu prevalence — how much of it there is in the community — in the numbers we’ve seen with COVID.”

This is a health economics blog, so where is the economics? We have the right to make ourselves sick. This, in a perverse way, is what economists call “consumer sovereignty.” The virus is an externality, affecting others. We should be informed, and prevented, from making others sick, which (to continue the metaphor) *is* perverse, and harmful. YB and partner were on four airplanes this past weekend. We were fully masked, as was just about everyone else (from the four corners of the earth) in the planes and in O’Hare (Chicago) and Atlanta Airports. We felt reasonably safe. Today a federal judge threw out mask requirements. YB and partner (who are in their 70s) may be re-evaluating future air travel plans. We already avoid shopping malls, cinemas, and most restaurants.

So, we are doing better with risk, and we have a better handle on the odds. We do not know (yet and still) the base, the amount of infectious stuff that is out there. If it is growing, as it appears to be, then another wave of COVID-19 is around the corner.

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