"Better safe than sorry." That's a great lesson for a child when a parent explains why she should wear a helmet when riding her bicycle. But "better safe than sorry" makes for terrible public health policy.

Why? Because humans in general (and politicians in particular) are terrible at understanding risk. The reason is because to fully comprehend the concept of risk, a person must have a very good understanding of statistics and data analysis. The average person has neither.

What do you think is more dangerous, walking to the corner grocery store to eat GMOs every day or driving to the nearest Whole Foods to avoid GMOs? Most people would probably pick the former; in reality, the latter is, by far, more dangerous. Each year, about 40,000 Americans die in fatal car crashes, a substantial number of which happen close to home. Nobody has yet died from a GMO.

If we were to implement a "better safe than sorry" policy in this situation, the data make the decision obvious: People should be banned from driving to Whole Foods.

Of course, that "common sense" policy is pure gibberish. As a society, we have decided that the benefits of driving outweigh the associated risk. Yes, there is a very real chance that you will die on your next trip to Whole Foods, but the risk is quite small. Even though we don't consciously realize it, we tacitly acknowledge this risk-benefit ratio every time we climb into a vehicle.

NYT Editorial Endorses the Precautionary Principle

The "better safe than sorry" policy has an actual name: The precautionary principle. It has been
enshrined into EU law, and many environmental and health activists believe something similar should be implemented in the United States. In a recent editorial [2] titled "Why Does the U.S. Tolerate So Much Risk?", the New York Times echoed that sentiment.

The article begins reasonably enough. It questions the FAA's delayed decision to ground Boeing 737 Max 8 planes while many other countries were quicker to act. The editorial argues that Europe's precautionary mindset led them to make the right decision faster, while America's tolerance for risk delayed the right decision. Then, the editorial draws a parallel to bisphenol A (BPA), a chemical found in plastics, which it apparently believes should be banned on precautionary grounds due to its alleged "endocrine disrupting" ability.

But this is very faulty reasoning. Two crashed airplanes constitute substantial evidence of harm. There is no comparably damning evidence, however, for BPA. It's not even clear if endocrine disruption poses any health risk whatsoever to humans. A review [3] published in Toxicology Letters in 2013 concluded:

"Overall, despite of [sic] 20 years of research a human health risk from exposure to low concentrations of exogenous chemical substances with weak hormone-like activities remains an unproven and unlikely hypothesis." [Emphasis added]

The reason BPA is used by manufacturers is because it is a useful plastic. It is even added as a liner to cans in order to prevent food from spoiling. It's perfectly legitimate to ask if the chemical is safe. But we should also be prepared to accept the answer (yes) after we investigate.

The NYT fails to grasp this. The editorial writer argues:

"The United States Food and Drug Administration insisted there was no evidence of danger. It did not remove the chemical from its list of approved substances in baby bottles until after manufacturers of baby bottles, concerned about a consumer backlash, stopped using BPA voluntarily."

This is very poor reasoning. The job of the FDA is to objectively analyze data for evidence of safety or harm. It's job is to ignore the will of the mob, not succumb to it. Data, not political pressure, is what should drive the FDA's decisions.

The editorial also praises Europe for banning neonicotinoids, a useful pesticide that has been erroneously blamed for killing honey bees. In reality, the honey bees are fine [4].

Ultimately, this is why the precautionary principle is bad policy. Far too often, the people responsible for implementing it -- politicians responding to noisy, uninformed voters -- make "common sense" policies that aren't rooted in scientific reality. That puts us on the road to banning people from driving to Whole Foods.