Have Stage-3 Kidney Disease? Your Kidneys May Outlive You

By Hank Campbell — February 19, 2016

Those in science and health media are often mystified by the willingness of some to promote fear and doubt about those topics, and the willingness of other people to believe them.

As we all know, a good metaphor can go a long way, in either direction.

Want to promote the idea that Monsanto caused the Zika virus? You can, and you can find a doctor or Ph.D. willing to say so. Someone somewhere will be willing to believe it, and send it all over the Internet - and recently did. The fact that the pesticide, pyriproxyfen, changes a hormone-control system that doesn't even exist in humans, and that Monsanto doesn't even make the larvicide they tried to implicate won't be important to the people who want to believe.(1)

Time and again, we read and hear about a crisis in science acceptance. That isn't really true. As I wrote in *Science Left Behind* [2], America actually leads the world in adult science literacy, and it has nearly tripled in the last few decades. Americans are pretty smart. When we have discussions here at the Council on how to talk about a complex issue, I sometimes remind myself that we should only assume a lack of vocabulary, not a lack of intelligence.

Yet I also often complain that someone is out there deceiving the public, that it happens far too easily and that a silly number of people deny the benefits of vaccines, or GMOs, or inexpensive energy. It's a common psychological trait to remember the bad things that happen and dismiss the good, including in science outreach.

However, if we spend all of our time thinking about the problems in public understanding of science, and engage in deficit thinking about people who just aren't ever going to accept science, we lose sight of the fact that a terrific metaphor, an easy-to-understand example, or some context, can also do a lot of good.

So let's talk about one example of the good and the power it has.

Imagine going to a doctor with stage-3 kidney disease and being worried because you read on the
Internet that at stage 5 you will need dialysis. You read that you already only have 30-60 percent Glomerular Filtration Rate (GFR - how much blood passes through the waste filters in your kidneys). You are, basically, doomed, you might think, unless you believe a Joe Mercola-type, or an organic yogurt salesman, or a supplement company claiming they can cleanse your problem away.

Then imagine the doctor tells you that starting at age 40 your effective GFR would begin to drop anyway, so the GFR numbers in context are not that bad, but just in case you should be prepared to go on dialysis ... at age 120.

120 years old? Someone living that long has happened one time since accurate record-keeping began [3]. There is little chance of duplicating it.

Upon hearing that age, you might respond, "Doctor, I will not take on dialysis when I am 120," which is exactly what a patient said to Dr. Yeong-Hau (Howard) Lien of Tucson [4] [subscription required] when he told her that's when she should worry about going on dialysis.

Basically, he was telling her that even with stage-3 chronic kidney disease, her kidneys were going to outlive her. He wiped out a lot of fear that can be created by reading worst-case scenarios on the Internet. His patient felt like she had a shot at being 120 years old, which is unlikely even without kidney disease, but certainly a more pleasant frame of mind than worrying if you will be on dialysis next year.

That's not what his article was about; he was talking about nephrology and the diagnostic criteria for referrals, but I found it to be a great example of how to put a scary scenario in a proper real-world context.

Science and medicine are hard. We could all benefit from reading about more positive ways to explain complex topics to a public that wants to be informed but often lacks some expertise and gets scared by activist groups or outright Deniers For Hire. If you have other great stories like this, where something was explained in an insightful or clever way, please share them in the comments.

NOTE:

(1) It was a giant gaffe for environmentalists, since they made their dubious conspiracy claim while the US EPA was considering a request by the actual maker, Sumitomo, to increase tolerance of pyriproxyfen residues in or on tea from 0.02 parts per million to 15 ppm. The EPA agreed [5]. So basically activists looked 75 times as stupid as they otherwise did just a few days later. Drink up!