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To: John Mecklin <john.mecklin@millar-mccune.com>
Subject: belief and medicine pitch

Dear John,

They call it “vitamin I.” Among runners of ultra-long distance races, ibuprofen use is so common that when scientist David Nieman tried to study the drug’s use, at the 100-mile Western States Endurance Run, he could hardly find participants willing to run the race without the popular drug.

Nieman, director of the Human Performance Lab at Appalachian State University in Boone, North Carolina, did eventually recruit the subjects he needed for his study comparing pain and inflammation in runners who took ibuprofen during the race with those who didn’t, and the results were unequivocal. Ibuprofen failed to reduce muscle pain or soreness and blood tests revealed that ibuprofen takers actually had greater levels of inflammation than those who eschewed the drug. “There is absolutely no reason for runners to be using ibuprofen,” Nieman said.

The following year, Nieman returned to the Western States race, and presented his findings at a pre-race conference. Afterwards, he asked attendees whether his study results would change their habits. The answer was a resounding no. “They really, really think it’s helping,” said Nieman. “Even in the face of data showing that it doesn’t help, they still use it.”

In theory, few would argue with evidence-based medicine's central concept--the idea that medicine should rely on the best available evidence--yet for many patients, and even some doctors, belief and gut instincts still trump scientific evidence when it comes to assessing medical practices. As medical science has grown increasingly sophisticated, researchers have become more adept at testing treatments and medical outcomes, but new evidence often meets with resistance and even outrage when it shifts recommendations away from popular practices or debunks widely held ideas about a disease or treatment.

I'd like to propose a feature about the backlash against evidence-based medicine health reforms. My piece will argue that beliefs, rather than evidence, drive most medical decisions and that if evidence-based medicine is to prevail its proponents must learn to devise narratives about the evidence that will fit into existing belief systems.

This issue is especially timely, because the stimulus package contained more than \$1 billion in funding for comparative effectiveness research (CER), which President Obama hopes will help slash medical costs by identifying ineffective treatments and focusing healthcare dollars on proven treatments. Currently, about one-third of health care spending in the U.S. is wasted on ineffective treatments and unnecessary tests. The ongoing healthcare reform debate has mobilized opposition to evidence-based medicine and

CER among drug companies, advocacy groups and physicians who worry that EBM and CER will prevent the use of their favorite treatments.

Convincing the doctors who use ineffective treatments (and the patients who demand them) to give them up will be no easier than talking those runners out of ibuprofen, but it's not impossible. My piece will show that scientific evidence is most readily accepted when it can provide patients and doctors with a satisfying narrative in which to place their belief. When it comes to changing minds, the stories sewn from new evidence are just as important as the facts themselves.

The long-distance runners who were sure that research on ibuprofen did not apply to them are just one example of the resistance that evidence-based medicine faces. Multiple large-scale studies have shown that breast self-exams lead to over-treatment but do not save lives, yet many doctors and breast cancer advocates continue to recommend them, in part because the take-home message provided by the evidence is something like, "be familiar with your breasts but don't obsess over them. A self-exam won't save your life." This evidence-based message does not provide the empowerment or sense of security provided by those who tout the exams, with sayings like "early detection is your best protection." When the choice is between assurance and uncertainty, the decision is easy, and advocacy groups worry that if they cannot provide a reassuring message their funding may run dry.

My piece will explore the reasons why new evidence often fails to convince, using the breast self-exam and ibuprofen examples mentioned earlier (or any of the many other examples such as controversies about back pain, "chronic" Lyme disease, vaccines and a type of knee surgery) and then turn this around to look at ways to increase the acceptance of new evidence. In my background reporting, I've discovered four common reasons people push back against evidence-based medicine.

*The evidence is dismissed as unbelievable, because it refutes a treatment or test that makes intuitive sense.

*The new evidence provides a less satisfying narrative than the storyline provided by a debunked treatment or procedure.

*The evidence-based guidelines contradict a strongly held belief about the illness or disease in question.

*Evidence-based medicine examines statistics about large groups of people, and individuals receiving a treatment feel that the statistics don't apply to them.

My story will examine these issues and look at how they're coming in to play in the current health care reform debate. The piece will argue that health care reformers and evidence-based medicine proponents need to create a satisfying narrative if they're to sway public opinion.

I have written about the nature of belief before, in a 2007 Bicycling magazine feature that was nominated for a national magazine award.

<http://www.bicycling.com/article/0,6610,s-1-9-16564-1-P,00.html>

Best wishes,

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