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“Cowboy Doctors” and Health Costs

WHO'S DRIVING UP U.S. healthcare costs? A recent study by Harvard professors and colleagues revealed that the culprits may be “cowboy doctors”—physicians who provide intensive, unnecessary, and often ineffective patient care, resulting in wasteful spending costing as much as 2 percent of the nation's Gross Domestic Product—hundreds of billions of dollars annually. The authors, including Eckstein professor of applied economics David Cutler and assistant professor of business administration Ariel D. Stern, found that physicians' beliefs in clinically unsupported treatment procedures can explain as much as 35 percent of end-of-life Medicare expenditures, and 12 percent of Medicare expenditures overall.

Physicians treating a critically ill patient may decide either to provide intensive care beyond the indications of clinical guidelines (such as implanting a defibrillator to counter severe heart failure), or attempt to make the patient more comfortable by administering palliative care. The researchers called the former group “cowboys” and the latter “comforters,” and found that their respective concentrations in a

region closely tracked end-of-life spending as a whole. “It was absolutely amazing how strong [the correlation] was,” Cutler said. The data indicate that cowboy doctors tend to congregate in southeastern states such as Florida. They are also more likely to be male, and less likely to be specialists.

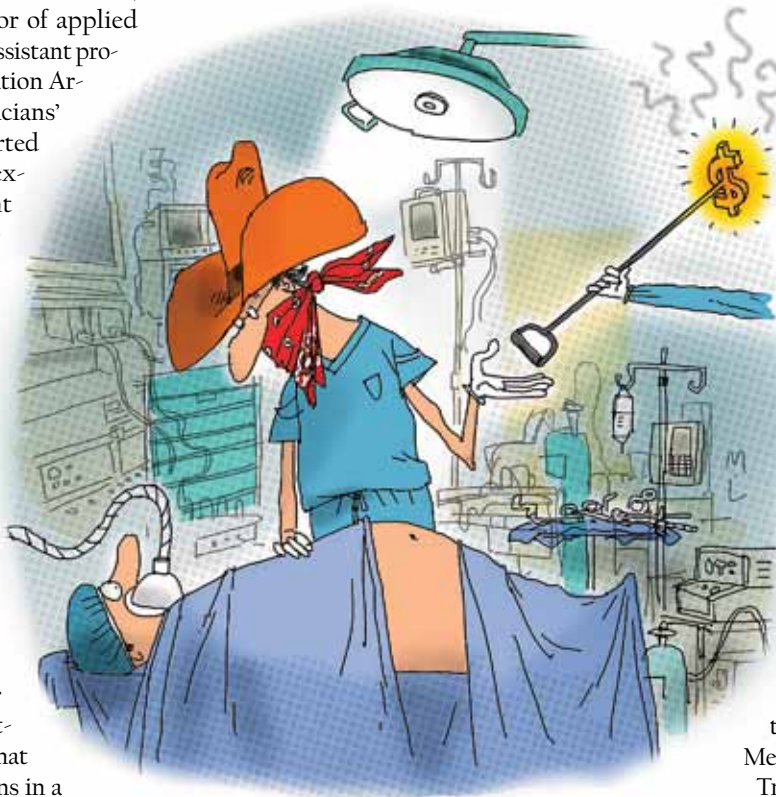
Though these cowboy doctors may be pushing the frontier of medicine by going above and beyond, said coauthor Jonathan

Skinner, a professor of economics at Dartmouth, clinical evidence showed little or no marginal benefit derived from the extra procedures, resulting in wasteful spending. Cutler suggested that doctors' beliefs in these ineffective treatments may spring from their self-perception as “interventionists”: “I think some doctors are saying: ‘I just can't accept that this patient is dying and there's absolutely nothing I can do. I've got to do something.’”

The study noted that very few doctors wanted to discuss the option of palliative care with patients, prompting Cutler to draw an analogy to auto mechanics: “You want this engine fixed, I'll fix it. I'm not going to talk to you about whether you should get a new car—that's someone else's' job.”

But as a result, he said, patients are “Ping-Ponged back and forth” between the primary-care physician, who recommends a specialist, and the specialist, who prefers to leave the question of whether certain treatments are necessary to the primary-care physician. Meanwhile, medical bills rise.

Traditionally, researchers at-



tempt to get a picture of physicians' beliefs by analyzing their actual behaviors. The problem is that other actors, such as patients, can have a say in these behaviors as well. The ability to tease out doctors' actual beliefs proved to be the study's biggest innovation, Cutler said. This was achieved by using "strategic surveys" that included vignettes of specific patient scenarios, and asking the responding physicians what they would do in each situation. Such surveys are often used in other areas of social science, Stern explained, but had rarely been used before to study healthcare economics.

Self-reports are sometimes unreliable, because respondents attempt to give the "textbook answer" rather than express their true beliefs. But this time, the researchers found that many physicians reported making decisions supported neither by clinical guidelines nor by medical literature. "Doctors are basically not relying on public scientific evidence," Skinner said. "They are relying on their own

beliefs, developed through...time."

The study also found that most doctors who recommended unnecessary procedures weren't seeking extra income—suggesting to Cutler that the lack of financial *penalty*, rather than the presence of financial *reward*, accounts for "cowboy" doctors' actions. The healthcare system's current incentives, he said, often do not prompt doctors to ask the right questions, such as whether a proposed treatment truly benefits the patient. "If doctors restrict themselves to performing what is evidence-based," Skinner pointed out, "we can save hundreds of billions of dollars a year."

According to Elliott Fisher, a professor of health policy at Dartmouth, a movement is under way to shift the healthcare-payment system toward incentivizing concrete benefits for patients. (A case in point is the hundreds of accountable-care organizations around the country, which seek to reward high-quality, low-cost care.) The new study, Fisher suggests, is important because it highlights a power

imbalance in the physician-patient relationship: doctors tend to follow their own beliefs about the right treatment to use, leaving patients little say in the process. How to treat a patient is often a multiple-choice question without a straightforward, single "correct" answer. When making these decisions, Fisher said, doctors should pay more attention to the patient's preferences, instead of relying on their own experience.

The research suggests that it's time for the cowboys to rein themselves in, and learn to listen.

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ICE, NOT OCEANS?

New Light on Ancient Mars Climate

COULD LIFE ever have survived on Mars? Scientists have long thought that billions of years ago, the climate of Mars was similar to that of early Earth: warm and wet. Now, a recent study by a Harvard scientist and his colleagues has concluded that Mars was

likely cold and icy instead, raising new questions about the prospects for life on Earth's closest cousin.

Assistant professor of environmental science and engineering Robin Wordsworth, along with other scientists, conducted the first direct comparison between the two

scenarios—"warm and wet" and "cold and icy"—using a three-dimensional model that ran on a super-computer at Harvard. The researchers found that the "cold and icy" model did a better job of explaining the water-erosion features that have been left behind on the Martian surface, such as the distribution of valley networks.

"The use of a three-dimensional, instead of one-dimensional model, is a technical advance from other studies in the field," said Bethany Ehlmann, an assistant professor at California Institute of Technology who reviewed the paper, "Comparison of 'Warm and Wet' and 'Cold and Icy' Scenarios for Early Mars in a 3D Climate Model" (published online on June 26 in the *Journal of Geophysical Research—Planets*). "Wordsworth et al. are at the top of the game here in terms

Fossil river deltas on Mars, such as this one in Eberswalde Crater, bear many similarities to river deltas on Earth. Such features suggest that Mars once had flowing liquid water on the surface, motivating study of the planet's early climate.

