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**HEALTH** THE DEBUNKER

## Flawed Study of Advanced Prostate Cancer Spreads False Alarm

By DENISE GRADY JULY 20, 2016

Bad news for men popped up in news media all over the country this week, based on a study from Northwestern University reporting that cases of advanced, aggressive prostate cancer had risen sharply from 2004 to 2013.

Newsweek, NBC, CBS, Fox News and United Press International were among the organizations that covered the study. The reports suggested that recent medical advice against routine screening might be to blame for the apparent increase in advanced cases, by leading to delays in diagnosis until the cancer reached a late stage. Another factor cited was the possibility that prostate cancer had somehow become more aggressive.

But the frightening news appears to be a false alarm — the product of a study questioned by other researchers but promoted with an incendiary news release and initially reported by some news media with little or no analysis from outside experts.

The claim of an increase in advanced cases does not hold up, according to the American Cancer Society, which posted a statement on its website challenging the findings. The main concern is that the study's methods do not pass muster with statistics experts, so the increase may not be real.

In an interview, the cancer society's chief medical officer, Dr. Otis W. Brawley,

called the study "misguided epidemiology" and said its authors "don't know that they don't know."

The episode began late last week when Northwestern University emailed an attention-grabbing news release to reporters. "Metastatic Prostate Cancer Cases Skyrocket," it said, and described a study published Tuesday in the journal Prostate Cancer and Prostatic Diseases.

The study's authors wrote that routine use of blood tests to screen for prostate cancer had declined, and that they wanted to find out if the decline had led to changes in the incidence of advanced disease at the time of diagnosis.

Prostate screening has long been a subject of intense debate, with advocates insisting it saves lives and detractors saying it leads to too much unnecessary treatment of tumors that would never have progressed. The operation can leave men incontinent and impotent. In recent years, expert groups have advised against routine screening, saying the risks outweigh the benefits. But some doctors worry that the drop in screening will leave some men with disease that is found too late to be easily cured.

The senior author of the study, Dr. Edward Schaeffer, a prostate cancer oncologist and the chairman of urology at Northwestern, said in an interview that he believed screening saved lives.

In the study, the doctors examined the records of 767,550 men with prostate cancer diagnosed from 2004 to 2013. Using the number of cases of metastatic disease in 2004 (1,685) and 2013 (2,890), they reported an alarming increase of 72 percent.

But for the United States population, that percentage could be meaningless. On the cancer society website, Dr. Brawley said that to measure whether a disease was becoming more common, researchers could not rely on just the absolute number of cases. They need to calculate rates, meaning the number of cases per a certain number of people.

"Epidemiologists learned long ago that you can't simply look at raw numbers," he wrote. "A rising number of cases can be due simply to a growing and aging population among other factors."

Another expert expressed similar doubts. Dr. Christopher Filson, an assistant professor of urology at Emory University School of Medicine, said: "I don't want to claim their results are wrong. They may be true, but the way they looked at the question brings in too many possible alternative explanations."

The authors acknowledged in their report that the lack of rates was a "limitation." But they said that because the number of patients was large, their findings probably reflected national patterns.

Dr. Schaeffer emphasized that the researchers did not claim a link between their findings and the advisories against screening; they noted that advanced cases started rising even before those.

Most of the initial news articles about the study reported the supposed increase without caveats, and few quoted the cancer society or outside experts. In some cases, online versions of the articles were amended to tone down the message and add comments from Dr. Brawley.

Maggie Fox, a reporter for NBC, said she reported on the study because "prostate cancer is a huge issue in this country, and the question of screening has been greatly controversial." Dr. Schaeffer, she said, is influential. "What he says will make waves, and we felt it was important to report and include criticism of the study."

Dr. Brawley said that even if further analysis found an increase in advanced cases, it would probably be from improvements in magnetic resonance imaging scanning. In other words, rather than reflecting more cases of advanced disease, the increase would mean doctors had become better at finding it.

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