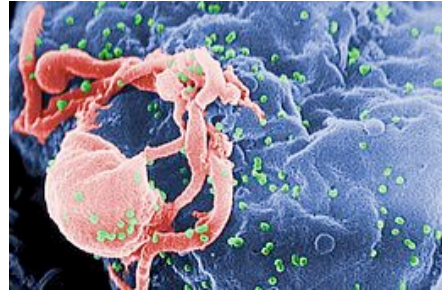


OCTOBER 12, 2009, 9:27 AM ET

## The HIV Vaccine and Science by Press Release

A closer look at the [HIV vaccine](#) study results announced recently suggests the vaccine may be less impressive than originally suggested, the [WSJ reports](#).

Researchers said last month that the vaccine lowered the risk of infection by about 31% — a “modest benefit,” they said, but one that was statistically significant, suggesting the finding was not a fluke. Another slice of the data that was not released at the time — one that looked only at patients who received all of their shots as scheduled and had the full sequence of shots before becoming infected — suggested the vaccine was 26% effective, the WSJ reported this weekend. But that benefit was not statistically significant: There was a 16% chance that benefit may have been a fluke, and the cutoff for statistical significance is 5%.



So should the researchers have released this finding as well when they announced their results a few weeks back, or waited to inform the public until the full results were published in a peer-reviewed journal or presented at a scientific conference?

The U.S. Military research program that was one of the study's sponsors published an [online update](#) this weekend explaining the timing and release of data. (The study was conducted in Thailand.):

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*The Thai Ministry of Public Health and other trial collaborators wished to inform the volunteers and Thai citizens of the results as soon as possible, instead of waiting for a scientific conference or publication. ... The multiple statistical analyses are all consistent with the same conclusion: that the vaccine was modestly effective at preventing HIV. However, explaining the differences between them is complex and the appropriate venue for this technical discussion of statistics is at an open scientific conference and in the scientific publication now under review at a major journal.*

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The study and its release points to some thorny issues regarding medical research and the press. If scientists release data suggesting a major medical advance, the press is going to report on the findings, even if the data haven't been vetted in the peer-review process. And, if a deeper analysis points to a more nuanced picture — as appears to be the case in this instance — whatever follow-up stories that do appear are unlikely to get as much attention as the initial stories that were based only on the data scientists chose to make available.

A blog run by the journal [Science](#) posted on the unreported findings last week, and quoted a report that included a useful reminder: “No matter what the headlines say, a single number is not the full result.”

*Image of HIV by C. Goldsmith via CDC*

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