

Re: Put your babies on statins

Source: <http://sci.tech-archive.net/Archive/sci.med.cardiology/2004-08/0091.html>

From: Herman Rubin (hrrubin_at_odds.stat.purdue.edu)

Date: 08/01/04

Date: 1 Aug 2004 16:06:23 -0500

In article <10gom53ob994511@corp.supernews.com>,
Robert <Robert@hotmail.com> wrote:

> "Herman Rubin" <hrrubin@odds.stat.purdue.edu> wrote in message
> news:cehd6v\$268o@odds.stat.purdue.edu...
>> In article <10gg4at6assd6c9@corp.supernews.com>,
>> Robert <Robert@hotmail.com> wrote:

>>> "Herman Rubin" <hrrubin@odds.stat.purdue.edu> wrote in message
>>> news:ce8udv\$3gfg@odds.stat.purdue.edu...
>>>> In article <lzHNc.3492\$3L7.1370@newssvr32.news.prodigy.com>,
>>>> Bill <xxx@yy.zz> wrote:

>>>>> "Zee" <zwalanga@yahoo.com> wrote in message > And: Some industry
> studies
>> > say

.....

>> I have addressed this issue; good fraud legislation willo
>> take care of this point.

>>> However, this will not solve the problem. We can consider,
>>> for example, dietary sodium. I doUbt that any companies are
>>> getting rich on low-sodium foods. The meta-analyses are in
>>> sharp disagreement. However, what I gather from the review
>>> paper in *Science*, the journal of the American Association
>>> for the Advancement of Science, is that some people are
>>> sensitive to sodium, and the other factors may be far more
>>> important for the rest. Papers without "significant" results
>>> are rarely published.

>Some diabetics are more sensitive to sodium as far as hypertension.

This is true for both diabetics and non-diabetics.

>Significant results not published? How can you judge something that is not
>published? There are various reasons why something isn't published. Private

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- > *companies do private company research not intended for publication.*
- > *University research is all about publishing. Editors must approve*
- > *"significant" articles after reviewing.*

One of the aspects of the statistical religion, highly relied upon by editors, is the use of "statistical significance". This means how unlikely the result would be if there was no effect due to the treatment; to what extent the treatment has an effect CANNOT be ascertained from this figure. This also is much of what meta-analysis works on.

To give you an idea of how misleading "significance" can be, there was an article on the carcinogenicity of the compound giving the flavor to broiled fish. This was fed to rats at high doses. About half of the 25 (IIRC) male rats fed the compound developed various cancers, while only one control rat out of 25 did. This was considered a moderate effect because the p-value was something like .03. If there were only 5 rats, it is unlikely that it would be reported, and if there were 500, it is likely that it would be highly significant and be considered a major effect.

I also heard of a case where the editor rejected the paper because the p-value was .08; he told the author to resubmit when it gets down to .05. While this is an appropriate strategy under some circumstances for Bayesians, for those believing in p-values, it is not.

- >> *The other point of that is when*
- >> *>other individuals perform research, such as individuals which proudly*
- >> *>remark*
- >> *>non drug money input, have a predetermined intended interest and results*
- >> *>show a negative anti0interst finds they don't publish that. They may*
- >> *>tweek*
- >> *>the study to obtain results they wanted and then publish those.*
- >> *>It takes money to perform research and those people providing it already*
- >> *>have a predetermined interest.*
- >> *>It is pretty much like a court of law where competing expert witnesses*
- >> *>are*
- >> *>bought and paid for.*

- >> --
- >> *This address is for information only. I do not claim that these views*
- >> *are those of the Statistics Department or of Purdue University.*
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