

## Duty to Warn

### **Flu Shots, Fosamax and Pharmaceutical Fakery: The Common Use of Misleading Statistics in the Medical Literature**

**By Gary G. Kohls, MD**

Last week there was a media buzz generated by a recent article in The Lancet (a pro-vaccine, pro-pharmaceutical industry medical journal that is published in Britain) that showed that flu vaccinations are far less effective than had been previously believed. In fact, the study suggests that the trivalent flu vaccines currently being pushed may approach worthlessness.

The article's principle author was Michael Osterholm, PhD, MPH, a widely published infectious disease researcher who, **prior to his current faculty position at the University of Minnesota, had served in various capacities with the CDC and the Minnesota Department of Health (MDH), including a high profile role as the MDH's Chief of the Acute Disease Epidemiology Section. 15 years of that association with the MDH was served as Minnesota state epidemiologist.** Osterholm has published over 300 articles and is highly respected in his field.

#### **The disconnect between the science and the propaganda**

The Lancet study, in the reports that I listened to on NPR and read about in various print media, was deceptively reported as showing that the trivalent flu vaccines should still be regarded as "moderately effective" for flu prevention rather than being brought into question as the minimally effective vaccine that the article suggested. What could explain the disconnect between the science and the propaganda?

Seeing no sign of a public retraction from Osterholm or his co-authors about the glaring misperceptions, I began to wonder if they were even aware that they had stooped to the depths that so many other medical, psychiatric and pharmaceutical industry researchers have gone to when their articles are published in mainstream medical journals. Misleading statistics that have appeared in medical journals are also used in drug commercials and by drug sales representatives when they try to convince us physicians to prescribe their company's synthetic drugs.

What I am talking about is the common statistical trick of the trade called the Relative Risk Reduction [RRR] statistic, which intentionally inflates embarrassingly low or even statistically insignificant results that have been obtained from research studies.

What the public deserves to be informed about but usually doesn't get is the far more meaningful Absolute/Actual Risk Reduction [ARR] figure, which are often too small to call attention to. Hence, the invention of the misleading RRR. I will deal with the important mathematical differences further below.

## **The deceptive relative risk reduction statistic**

A lot of medical research these days is done by academic scientists that may not be clinicians. The vast majority of these researchers (estimated to be over 80%) are in the employ of the for-profit drug and medical device industries. The research articles that list them as authors are frequently written by ghost-writers who are salaried by the corporations that designed and funded the study and have, by contract, exclusive control of how the research is utilized.

The researchers involved in such studies are naturally highly motivated to help sell the products they are working on, with the hope that positive results will increase the value of any stock holdings that may be part of their compensation package. I hasten to add that there is nothing wrong with making money in an ethical and honest manner, but a lot of medical research intentionally overstates the benefits of the products that are being marketed and minimizes or even hides the negatives of their newly discovered drugs, vaccines or medical devices.

One of the problems alluded to above is the widespread use of the grossly misleading statistic called the Relative Risk Reduction (RRR). It is important for consumers of new drugs or medical devices to understand the differences between it and the ARR. Usually, if the differences are mentioned at all, they are only mentioned in the fine print.

The Lancet article that revealed the lack of efficacy of flu shots did indeed report a “60% efficacy rate”, and that phrase was prominently reported in the media, which pointed out the commonly-accepted past estimates of 90% efficacy. The problem was that both were misleading RRR figures. But what wasn’t reported in the media coverage was the fact that the actual risk reduction (ARR) with the flu shots was a miniscule 1.5%. If that figure had been used, people would have balked at consenting to the shot. And, as any honest, non-co-opted, thinking person can see, the difference between the misleading figure of 60% and the real figure of 1.5% is huge – and represents just another cunning statistical trick that is used to promote highly profitable products, that, incidentally, can also be toxic.

## **Blowing the whistle on deceptive advertising in medicine**

Seeing the truth of the matter and hearing the misleading media interpretation, I knew that some somebody needed to blow the whistle. Hence this article.

One of the reasons to be truthful about flu vaccine efficacy is the fact that the benefits for the elderly have been consistently exaggerated over the ears, both in the medically literature and in the advertisements by medical clinics, trade associations, departments of health and the CDC. Many studies have failed to show any reduction in mortality for elderly recipients, despite an increased vaccination rates in that group (from 15% to 65% over the past 30 years). (Ref: The Lancet Infectious Diseases, October 2007)

### **And here is the math**

To make my point about the deceptiveness of the RRR statistic to those who are non-scientists or non-mathematicians, here is the essential math that needs to be pointed out:

In the Lancet study, there were only 357 victims of influenza among the non-vaccinated pooled sample of 13,195 that were studied. That means that only 2.7 persons out of every 100 non-vaccinated person (2.7%) got symptoms compatible with the flu, meaning that 97.3% of unvaccinated people did not get the flu despite not getting the shot. Good odds that many of us would accept if we had known the actual risks of forgoing the shot.

The study also states that 1.2% of the vaccinated population still got flu symptoms even after having received the shot. So 98.8% of people who were vaccinated did not get the flu (virtually the same as the 97.3% of non-vaccinated people that did not get the flu).

Simple subtraction tells us that a tiny 1.5% ( $98.8 - 97.3 = 1.5$ ) of people benefited and that approximately 98% would not have become sick with the flu whether or not they were vaccinated. Again, a risk many people would be willing to take if they were told the truth!

Here is more about how the RRR statistical trick is calculated, using the flu vaccine study results:

Relative risk reduction is calculated by dividing the 1.5% number above by 2.7%, which equals a seemingly large number of 55%, (which was rounded up to get the talking point figure of 60%). To get the more meaningful ARR of 1.2%, one subtracts 1.5% from 2.7%. Therefore the calculated benefit (the “absolute/actual risk reduction”) for getting the flu shot is a miniscule figure.

Knowing that there are a number of studies that show that taking extra doses of the far cheaper and safer vitamin D3 during the winter months can give definite protection from the flu, one realizes that there are alternatives to being vaccinated.

An important point that needs to be reiterated is the fact that the 98 % of the vaccinated population who weren't going to get the flu anyway were unnecessarily exposed to the toxic ingredients of the intra-muscular trivalent viral influenza shot. Included among these potentially dangerous substances that are acknowledged to be in the flu shots are the mercury preservative Thimerosal, formaldehyde, aluminum, immune system-stimulating adjuvants like squalene, viral contaminants, and who knows what else?).

### **Fosamax prospered because of the same statistical trickery**

Fosamax was the first popular and highly profitable “osteoporosis prevention” drug that, among many other unknown and unappreciated effects (at least at the time of marketing approval), interfered with a patient's fragile, complex and incompletely understood bone metabolism. The drug had been proven to increase bone density in many patients (but did

not necessarily increase bone strength), but the claim that it reduced hip fractures by 50% was based on the misleading “relative” hip fracture reduction (a RRR) calculation. What was not prominently advertised was the ARR of only 1%, a minuscule rate for elderly women who continuously took the drug over a 4-year period.

The Fosamax hip fracture study for older women at high risk for future fractures (that was funded and controlled by the British pharmaceutical giant Glaxo) revealed that hip fractures occurred in only 2 out of every 100 untreated (placebo) patients, a 2% incidence.

In the drug-treated patients there were only 1 out of 100 patients who suffered hip fractures, a 1% incidence. So the RRR (1% divided by 2% = 50%) had to be used to convince patients to take the drug, but the calculated ARR was well hidden because it was a minuscule 1% (2% minus 1% = 1%).

That also means that 98% of non-treated patients did not get a hip fracture after 4 years of observation and 99% of Fosamax-treated patients did not get a hip fracture, thus receiving no benefit from taking the drug. 80% of media ads deceptively claimed that “Fosamax cut the risk (of hip fracture in elderly women) by 50%” And not many of us physicians saw through the clever subterfuge!!

Again it must be emphasized that 98 – 99% of elderly patients who were regarded as being at high risk of having a hip fracture had no hip fractures, whether they were drugged or not. But the treated group risked experiencing the often serious side effects including esophageal ulcerations and the disfiguring and incurable osteonecrosis of the jawbones, among dozens of other potentially serious adverse reactions that the untreated group were not at risk for.

### **Fully informed consent: Is it a thing of the past?**

Being fully informed about all the pros and cons of any treatment, medical device usage or surgical procedure used to be solely the obligation of the involved health care provider. Nowadays it seems that such health information is being taken over by the propaganda techniques of cunning megacorporations who can afford to pay the billions of dollars for propagandizing patients and their physicians, for lobbying Congresspersons and presidents to enact favorable legislation and to pay the costs of the inevitable and expected lawsuits for damages done when the injured patient hadn't been given fully informed consent.

Only in America (and New Zealand) would this be expected to happen for they are the only two nations in the developed world where direct-to-consumer advertising for synthetic pharmaceutical drugs is not against the law.

There is some slim good news I suppose and that is that the spirit of Hippocrates, he of the “First Do No Harm” code of medical ethics, may still be alive, and that spirit could save us, if there is any justice left in this crashing nation. Hippocrates has been spinning

in his grave ever since the pharmaceutical industry and big corporations took control of and spoiled the honorable practice of medicine.

Our patients, who have already been losing respect for what, in its current incarnation as a hard-hearted, highly efficient Big Business, would forgive us if we admitted that our profession is flawed and compromised.

---

Dr. Kohls is a retired Duluth-area physician who, prior to his retirement, practiced holistic, non-drug, mental health care. He writes about issues of peace, justice, nonviolence, theology, war and health. He recommends to readers that they discuss their personal healthcare concerns with a trusted, open-minded practitioner.

Sources used in the production of this article:

Lancet Infect Dis. 2011;doi:10.1016/S1473-3099(11)70295-X.

[http://www.naturalnews.com/033998\\_influenza\\_vaccines\\_effectiveness.html](http://www.naturalnews.com/033998_influenza_vaccines_effectiveness.html)

<http://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2811%2970295-X/abstract>