

## **Beverage-Industry Funded Research Yields Sweet Results**

BOSTON, Jan. 9 -- When soft-drink companies fund nutritional research, the result is quite likely to be a favorable outcome, according to our researchers here.

Nutritional studies involving soft drinks, juice, or milk were nearly eight times more likely to be favorable to the product studied when the beverages' manufacturer picked up the tab, reported David S. Ludwig, M.D., Ph.D., of Children's Hospital, and colleagues, in the December 2006 issue of *PLoS Medicine*.

The authors reviewed more than 200 nutritional studies of beverages, and found that when industry funded interventional trials, none of the studies had unfavorable results. In contrast, 37% of interventional studies that were not supported by a company or trade group gave thumbs down to the product in question.

"Industry funding of nutrition-related scientific articles may bias conclusions in favor of sponsors' products, with potentially significant implications for public health," the investigators wrote.

They're not the first researchers to take note of an apparent bias in industry-supported medical or scientific research.

For example Paul M. Ridker, M.D., and Jose Torres of Harvard Medical School reported in the May 17 issue of the *Journal of the American Medical Association* that when a drug company or device-maker is funding a clinical trial for a new cardiovascular treatment, the reported outcome is likely to reveal good news for the new treatment.

Likewise, when funding comes from non-profit sources, the outcomes are less likely to favor the new treatments and when for-profit and not-for-profit funders split the tab, the results seem more even-handed.

Moreover, when a trial uses a surrogate endpoint rather than a clinical endpoint, the results are likely to favor the new treatments regardless of who is paying for the research.

In the current study, Dr. Ludwig and colleagues searched the medical literature worldwide to identify interventional studies, observational studies, and scientific reviews of soft drinks, juice, and milk, looking especially for those articles where funding sources were declared.

They used exact tests and regression analyses controlled for covariates to explore the relationship between outcomes and money source.

They identified 206 articles, 111 of which disclosed financial sponsorship. Of the studies that listed a funding source, 22% were industry backed, 32% had mixed funding, and 47% had no industry support.

The investigators found that the "funding source was significantly related to conclusions when considering all article types ( $P=0.037$ ). For interventional studies, the proportion with unfavorable conclusions was 0% for all industry funding versus 37% for no industry funding ( $P=0.009$ ). The odds ratio of a favorable versus unfavorable conclusion was 7.61 (95% confidence interval 1.27 to 45.73),

comparing articles with all industry funding to no industry funding."

Biased conclusions in nutrition studies may have even more of an adverse public health impact than slanted drug studies, the investigators warned.

"We don't all take drugs, but we eat every day," Dr. Ludwig said. "If the science base is compromised by conflict of interest, that's a top-order threat to public health."

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