

effect on heart disease risk of a Unilever margarine enriched with alpha-linolenic acid (ALA), an important short-chain omega-3 found to be rich in Mediterranean diets, well known for their health promoting properties. The study also aimed to assess the effect of group education on the benefits associated with consuming a typical Mediterranean diet. Importantly, the subjects in the study all had multiple cardiovascular risk factors: nearly half were smokers and took anti-hypertensive drugs, while over 40% had family histories of cardiovascular risk.

Bemelmans and colleagues own findings, in contrast to their interpretation of these findings in the Hooper et al meta-analysis, are overwhelmingly positive. They demonstrate clearly the beneficial effects of ALA-enriched margarine on reducing heart disease risk. The study also shows that group education led to healthier diets, with increased consumption of fish, and consequently lower heart disease risk factors.

These findings are actually fully in line with another major study, the Lyons Diet Heart Study, published in 1994 in the *Lancet*, which actually provided the inspiration for Bemelmans and colleagues MARGARIN trial.

So, how was this study distorted to give the impression that omega-3 fats might be bad for you? This is down to the very small number of deaths recorded, which could just as easily be a function of chance rather than any treatment effect. The study included only four deaths out of 266 subjects in total. The omega-3 meta-analysis authors managed to blacken this study because 3 out of 4 of these deaths (again from all-causes, not just cardiovascular disease) occurred in the high ALA, treatment group, while only one was in the low ALA, control group. This small number of deaths could easily have been a function of random, "Çystatistical clustering", particularly given that risk factors appeared lower in the high ALA treatment group.

Dr Bemelmans has actually gone on public record since the release of Hooper etc. meta-analysis questioning the way in which her study has been used, and how her and her co-authors positive findings have been used to