



## HARVARD SCHOOL OF PUBLIC HEALTH

Division of Public Health Practice

**Translating passion and learning into advances that protect the health of all**

MEMO

To: File  
From: Dr. Gregory Connolly  
Re: Misrepresentation of Harvard School of Public Health research on RIP cigarettes  
Date: June 12, 2006

Over the past few months, the tobacco industry and “smokers rights” organizations have misrepresented research conducted by the Harvard School of Public Health on reduced ignition propensity (RIP) cigarettes.

One misstatement was that our data showed an increase in disease risk. This is not true. Our study measured the machine yields of a range of emissions in cigarette smoke in order to determine whether the design changes of RIP cigarettes resulted in a substantial increase in machine measured mainstream smoke emissions and placed them outside of the range of variation of conventional cigarettes. The purpose of our research was not to predict human exposure to toxins based on a machine test. That is scientifically impossible since machine yields cannot predict disease risk or harm. The variation in machine measured smoke constituent yields in the Marlboro family of cigarettes is, for example, up to four or five fold (i.e. 400%).<sup>1</sup> The differences we observed were generally of much smaller magnitude, in the range of 10%.

We know from epidemiological research that the risk for cancer and cardiovascular disease is similar for brands with high and low yield rating on a standard machine test.<sup>2</sup> There is no scientific evidence that a ten percent difference in either direction alters the already extremely high risk of disease. Both products are extremely lethal. It is analogous to jumping out of the 11th floor rather than the 10th floor.

To cite findings dated 1993 as the paid advertisement does suggesting that they alone represent the state-of-the-art in 2006 is scientifically irresponsible in light of the wealth of research including ours that has since then been conducted. To be clear, the U.S. Consumer Product Safety Commission report cited in the ad also analyzed and found no significant differences between the tar, nicotine and carbon monoxide (CO) yields for six commercial cigarette packings of reduced ignition strength and the values for the yields from the 14 best selling commercial cigarette packings.<sup>3</sup>

Philip Morris has since developed the Merit Select brand cigarettes and demonstrated its reduced ignition propensity. The company tested and found no higher level of toxicity for these cigarettes using a testing protocol that included both chemical analyses of smoke and human exposure measurements.<sup>4</sup>

Cigarette companies sell many cigarette brands with much higher machine yields than was found in the New York sample of brands of fire safer cigarettes. If they are truly concerned about the CO level in fire safer cigarettes, they could stop selling any brand that has a level higher than what we found. They have not done this and in all likelihood never will.

Another misstatement was that little is known whether reduced ignition propensity cigarettes reduces fire risk based on a 1993 report. The National Institute of Standards and Technology (NIST) determined that performance on cigarette ignition propensity tests is positively correlated with reduced ignition behavior in full-scale real fabric upholstered furniture, the principle cause of fires.<sup>3,5</sup> The science and knowledge of cigarette ignition propensity are now even further advanced.

Recent epidemiological data reported by the New York Office of Fire Prevention and Control indicate a 22 - 48% reduction in cigarette fire deaths in the second half of 2004 after implementation of the state's cigarette fire safety law.<sup>6</sup>

The rights of the non-smoking victims of cigarette-caused fires are also essential. These comprise one in four of the deaths in cigarette-caused fires according to the National Fire Protection Association. Of these victims, 34% are children of the smokers, 25% are neighbors or friends, 14% are spouses or partners, and 13% are parents. Other victims include firefighters.<sup>7</sup>

A major public health message that has to be stressed is that all cigarettes are deadly. Both products are extremely lethal in terms of health outcomes and are highly addictive. Smokers should quit regardless. Reduced ignition propensity reduces only the risk of fire death, and they should be required for this reason.

## References

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