

SACTob Conclusions on Health Claims Derived from ISO/FTC Method to Measure Cigarette Yield

Background

The United States Federal Trade Commission [FTC] adopted standardized testing methods for the measurement of tar and nicotine yields of cigarette smoke in the 1960s and for carbon monoxide in 1981, mandating the disclosure of these ratings in cigarette advertising (1). Under the International Organization for Standardisation [ISO] method, similar testing methods were adopted in Europe and many other countries.

For nearly three decades, the ISO / FTC methods were relied upon as meaningful predictors of the differences in exposure to tar, nicotine and carbon monoxide received by smokers of brands with different machine measured yields. This difference in exposure was expected to result in substantive differences in the health effects of smoking various types (low/high yield) of cigarettes (2). Since the 1980s, however, there has been growing concern among health authorities and scientists alike about the validity of the health claims based on these methods (3, 4, 5, 6, 7).

Even in the early 1980's, it was understood that measurements made using the ISO/FTC protocol did not quantify the actual delivery of toxins to the smoker since individual smokers smoked with a variety of puff profiles that differed from those used in the machine testing. Today, with a better understanding of the modern cigarette designs and the concept of compensatory smoking of the low yield cigarettes (2), the limitations of the ISO/FTC measurements, even for comparisons of smoker exposures between brands of cigarettes have become more evident (8, 9). The validity of communications made to consumers on the basis of the ISO/FTC methods regarding the delivery of carcinogens and other toxins from different types of cigarettes are now being questioned (8,10,11). Considerable concern exists about the misuse of test results by tobacco companies to support their marketing claims, which imply that cigarettes with lower yield ratings are '*safer*' than those with higher ratings (12,13,14, 15).

The ISO/FTC protocols were never designed to accommodate the variations in human smoking habits as opposed to the standard machine smoking methods (1,16,17). It is now clear that the combination of compensatory changes in smoking patterns by smokers and cigarette design changes (particularly ventilation holes in filters) which increase the yield of smoke can restore the smoke delivery of the so-called low-yield cigarettes to that of full flavour cigarettes with much higher machine measured yields (18, 19, 20, 21). However, as a consequence of the conventional format for conveying tar and nicotine information, the consumer believes that the 'low yield' cigarettes provide an alternative to smoking cessation (22,23). This belief persists even though it is now accepted that "low yield" cigarettes do not offer any proven health benefit in comparison to higher yield cigarettes (2,4,5,24,25).

The United States F.T.C stated in 1998 that: "new data suggests that the limited health benefits, previously believed to be associated with lower tar and nicotine cigarettes

may not exist.” (26). Also, a 1999 quotation reads: “They (the ratings) are not intended to reflect what any individual consumer would get from any particular cigarette”(27).

In 2001, the U.S. National Cancer Institute completed its evaluation of the scientific basis for the relationship between the FTC methods and the health effects of smoking, as well as the effects of marketing claims (e.g., “reduced tar” and “light”) that are supported by the information derived from these methods (15).

The NCI Monograph (Number 13, 2001) “Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine” presented the following five main conclusions:

1. *“Epidemiological and other scientific evidence, including patterns of mortality from smoking-caused diseases, does not indicate a benefit to public health from changes in cigarette design and manufacturing over the last fifty years.”*
2. *“For spontaneous brand switchers, there appears to be complete compensation for nicotine delivery, reflecting more intensive smoking of lower-yield cigarettes.”*
3. *“Widespread adoption of lower yield cigarettes in the United States has not prevented the sustained increase in lung cancer among older smokers.”*
4. *“Many smokers switch to lower yield cigarettes out of concern for their health, believing these cigarettes to be less risky or to be a step toward quitting. Advertising and marketing of lower yield cigarettes may promote initiation and impede cessation, more important determinants of smoking-related diseases.”*
5. *“Measurements of tar and nicotine yields using the FTC method do not offer smokers meaningful information on the amount of tar and nicotine they will receive from a cigarette. The measurements also do not offer meaningful information on the relative amounts of tar and nicotine exposure likely to be received from smoking different brands of cigarettes.”*

Currently, there are two major issues of concern about the health claims based on the ISO/FTC methods: one, machine-measurements are not valid estimates of the exposure to smoke or nicotine received by smokers when they smoke different brands of cigarettes (4,16) and two, many smokers currently believe that lower yield or light cigarettes deliver less tar, produce lower rates of disease and are therefore ‘safer’ (17,22,28,29). Because of these misconceptions, smokers believe those cigarettes marked as lower yield or light and ultra light are a reasonable intermediate step or alternative to cessation and may defer or avoid the one change in smoking behaviour proven to actually reduce their disease risk-cessation.

The Health Education Authority in the UK (30) and several other studies have revealed that the tar and nicotine ratings as they are displayed by the industry are not clearly understood by the consumers (28,31). Due to the advertising and packaging methods adopted by the industry, smokers see these terms not as technical descriptors but as implying health benefits (13,32,33). These advertising and marketing approaches have contributed to consumers’ using low yield cigarettes in an attempt to reduce their health risks, or as a step towards or an alternative to smoking cessation (34,35). A number of reputed bodies have therefore recommended banning terms such as ‘light’, ‘mild, etc (25,36)

Additionally, awareness levels among the general public about the limitations of the ISO/FTC test methods and the ratings based upon them (37,38,39) are very low. The regulatory measures undertaken for the disclosure of this information have clearly proven ineffective (40,41).

The message that there is no such thing as a safe cigarette still has not been effectively communicated to the smoking public...

Based on the existing science, SACTob makes the following conclusions and recommendations:

1. Tar, nicotine, and CO numerical ratings based upon current ISO/FTC methods and presented on cigarette packages and in advertising as single numerical values are misleading and should not be displayed.*
2. All misleading health and exposure claims should be banned.
3. The ban should apply to packaging, brand names, advertising and other promotional activities
4. Banned terms should include light, ultra-light, mild and low tar, and may be extended to other misleading terms. The ban should include not only misleading terms and claims but also, names, trademarks, imagery and other means to conveying the impression that the product provides a health benefit.

* The Canadian government is using a range and it hasn't been evaluated. No judgement therefore is passed on this.

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