Summary and Explanation of Major Conclusions in the National Cancer Institute’s “Monograph 13: Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine”

“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.”

- Despite public perceptions fostered by the tobacco industry, the use of cigarettes with low machine measured yields of tar and nicotine and labeled as “light” and “low tar” have not resulted in a meaningful reduction in the disease burden or health risks caused by cigarette use either for smokers as a group or for the whole population. The recommendation that individuals who cannot stop smoking should switch to low yield cigarettes causes harm because it misleads smokers and many smokers may choose these products as an alternative to cessation.
- Changes in cigarette design have substantially lowered machine measured tar and nicotine yields of cigarettes smoked in the United States. However, tar and nicotine measurements by the FTC method for current cigarettes have little meaning for the smoker, either for how much he or she will receive from a given cigarette or for the difference in the amount of tar and nicotine received when he or she smokes different brands of cigarettes.
- The widespread adoption of lower yield cigarettes by smokers in the United States has not prevented the sustained increase of lung cancer among smokers. In addition, with the introduction of lower yield cigarettes, there have been other changes in the agricultural, curing, and manufacturing processes of cigarettes that are believed to have contributed to the increase in adenocarcinoma of the lung (cancer of the lower lung) observed over the past several decades.

“For spontaneous brand switchers, there appears to be complete compensation for nicotine delivery, reflecting more intensive smoking of lower-yield cigarettes.”

- The scientific evidence demonstrates that smokers regulate their intake of nicotine to obtain the amount of nicotine that they need to sustain their addiction. Studies of smokers who spontaneously switch brands indicate that there is no reduction in smoke intake per cigarette and that any reductions that are seen in brand switchers may be offset by increases in the smoker’s cigarette consumption.
- Design changes that have reduced machine-measured tar yields such as placing ventilation holes in the cigarette filters, allows a smoker to alter their smoking behavior to increase the actual yields of tar and nicotine delivered by the cigarette.
- When smoked by a human smoker, the inhaled smoke of one “light” or “low tar” cigarette may contain 2 to 3 times the amount of tar, nicotine, and carbon monoxide compared to the same cigarette smoked by machine using the FTC testing method.
Internal tobacco company documents demonstrate that cigarette manufacturers recognized the deception of the FTC tar and nicotine yield measures for advertising that offered cigarettes as “light” or “ultra-light,” or as having the lowest tar and nicotine yields.

“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.”

Many smokers of “light” and “low tar” cigarettes believe they are less risky than “full-strength” cigarettes and use the terms as a guide to the riskiness of particular brands of cigarettes.

Advertisement of filtered and low tar cigarettes were intended to reassure smokers who were worried about the health risks of smoking and were meant to prevent smokers from quitting based on these same concerns.

Advertising and promotional efforts were successful in getting smokers to use filtered and low yield cigarettes. Individuals who are most concerned about smoking risks and most interested in quitting use low yield brands.

The false perception that low yield cigarettes are less hazardous has been fostered by tobacco industry marketing, by the FTC testing system and by the public health message that if you can’t quit smoking, switch to “light” and “low tar” brands.

“Our 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.”

The current U.S. cigarette tar and nicotine yields as measured by the FTC method do not produce useful information to the smoker either for understanding how much tar and nicotine he or she is likely to inhale from smoking a particular cigarette or for comparing the tar and nicotine intake that is likely to result from smoking different brands of cigarettes.

The absence of any meaningful differences in smoke exposure when different cigarette brands are smoked and the resultant absence of any meaningful differences in risk makes the marketing of these cigarettes as lower yield or lower risk deceptive for the smoker.