Background

Although efforts have been made to eliminate the use of misleading descriptors such as “low tar,” “lights,” and “mild” from cigarette marketing, the elimination of the cigarette filter, which is on 99.7% of cigarettes sold in United States, has been largely overlooked as a tobacco control strategy. The 2014 U.S. Surgeon General’s Report on the Health Consequences of Smoking and the 2001 U.S. National Cancer Institute Monograph report that the near-universal adoption by smokers of filtered cigarettes since their introduction in the 1930s has not reduced these consumers’ risks for cancer and other diseases (1). Moreover, the non-biodegradable filter is the main component of tobacco product waste in the environment.

A Brief History of Filtered Cigarette Advertising

(from the UA Center for the Study of Tobacco and Society)

Peter Jackson Ltd., 1930s

Med J of Australia, 1940s

JEME Magazine, 1953

MD Magazine, 1960

Massachusetts Physician, 1969

LIFE Magazine, 1960s

PARADE Magazine, 2001

• In the 1950s, confronted with declining cigarette sales after the publication of research studies linking smoking to lung cancer, tobacco companies increased production of filter brands that were claimed to remove certain components of the smoke, even though manufacturers never acknowledged them to be harmful. Cigarette filters involved the use of charcoal, paper, cellulose acetate, propylene glycol, and other chemicals. Kent “Micronite” filters marketed in the 1950s contained asbestos (3).

• Lower machine-measured tar and nicotine yields were thought by smokers to reduce cancer risks; “light,” “low tar,” and “mild” became key advertising messages despite growing evidence of increased risks for lung cancer. (These fraudulent terms are now considered toxic hazardous waste and regulated as such (5).)

• Lower machine-measurements of tar and nicotine yields were due to ventilated filters—i.e., holes in the filter that may create deceptive filtration results and that may be occluded by smokers that the filter does not confer any health protection. (These fraudulent terms are now considered toxic hazardous waste and regulated as such (5).)

• Lung cancer risks among smokers have doubled for men and increased by almost 10 times for women from 1960-1980; relative risks for and incidence of the more aggressive adenocarcinoma increased from 4.6 to 19.0 among men and from 1.5 to 8.1 among women (6).

• The use of ventilation in cigarette filters has also failed to make them safer and more than likely has made them more harmful (2, 3). Smokers who switched to low-tar cigarettes employed compensatory smoking, whereby they inhale more frequently and more deeply to maintain nicotine dosing. Such compensatory behavior offsets any theoretical benefit of ventilated filters and results in increased inhaled carbon monoxide and increased cardiovascular risk.

• The tobacco industry has known for decades that the filter does not provide protection from the adverse effects of smoking (7).

Toxic Tobacco Product Waste

• Most filters are made of cellulose acetate, a non-biodegradable plastic material. As discarded trash, they are the single most common waste item picked up over the last 30 years on beaches and urban cleanups worldwide (4).

• The leachates produced by soaking butts for 96 hours in fresh or salt water have been found to have a LD50 for test fish of one cigarette butt per liter. According to this U.S. Environmental Protection Agency protocol, cigarette butts should therefore be considered toxic hazardous waste and regulated as such (5).

• 5.6 trillion cigs are smoked globally each year, and up to 2/3s are dumped irresponsibly somewhere into the environment.

Conclusions

1. There is sufficient evidence that cigarette filters are a fraud, primarily acting as a marketing tool with which the tobacco industry has deceived the public about some “health benefit” from smoking filtered compared with unfiltered cigarettes.

2. The cellulose acetate filter comprises the bulk of tobacco waste, which is a toxic hazardous waste product and therefore should be further regulated as such by national, state, or local jurisdictions.

3. Banning sales of filtered cigarettes is likely to reduce cigarette consumption, denormalize smoking, and result in fewer children starting to smoke.

4. Policy makers and health providers need to reinforce the fact to smokers that the filter filter health protection, then pursue other strategies to help smokers quit.

5. Further research is needed on the health and behavioral impact of removing filters from the global cigarette market, but banning the sale of filtered cigarettes should be implemented now without further research.

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