

The Tobacco Industry : Past, Present and Future

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The first large-scale epidemiological studies on smoking and disease in 1950 revealed a dose-response relationship between the number of cigarettes smoked and risk for lung cancer. These findings were supported by bioassays resulting in a dose-response between the amount of tar applied to mouse skin and induction of skin tumors. On the basis of these observations, the initial research toward the less toxic cigarette emphasized the reduction of smoke yields for tar and nicotine and utilized the standard machine smoking method of the FTC to measure such reduction. The emission of tar and nicotine from the US sales-weighted average cigarette was gradually lowered from 38 mg of tar and 2.7 mg of nicotine in 1953 to 18 and 1.2 mg in 1975, and since 1996, to 12 and 0.85 mg, respectively. The tar and nicotine reductions were achieved by using filter tips primarily made from cellulose acetate. The prevalence of filter tipped cigarettes increased from 0.5% of all US cigarettes in 1950 to more than 97% since 1990. Reductions were also achieved by incorporating into the cigarette blend reconstituted and expanded tobacco, by increasing the porosity of the cigarette paper, by changing the tobacco blend, including increasing the portion of air cured tobacco, and by developing perforated filter tips. It was always recognized that it is highly unlikely that there will ever be a nontoxic cigarette and that there is only one certain way to prevent, respectively to reduce, smoking related diseases, namely, by not starting the smoking habit or, for smokers, to stop the habit. The less harmful cigarette was, and is only regarded as a compromise for those who cannot or will not give up smoking cigarettes. For those adults who did not succeed in refraining from smoking, the less harmful cigarette has to be developed as the cigarette of the future. A number of scientists in tobacco control and tobacco-health research regard the less harmful cigarette as a must for our society.