The public health gains had cigarette companies chosen to sell very low nicotine cigarettes

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Abstract

Introduction The U.S. Food and Drug Administration (FDA) has proposed lowering the nicotine content of cigarettes to a minimally addictive level to increase smoking cessation and reduce initiation. This study has two aims: (1) to determine when cigarette manufacturers had the technical capability to reduce cigarette nicotine content and (2) to estimate the lost public health benefits of implementing a standard in 1965, 1975, or 1985. Methods To determine the technical capability of cigarette companies, we reviewed public patents and internal cigarette company business records using the Truth Tobacco Industry Documents. To evaluate the impact of a very low nicotine content cigarette (VLNC) standard on smoking attributable deaths (SADs) and life-years lost (LYLs), we applied a validated (CISNET) model that uses past smoking data, along with estimates of the potential impact of VLNCs derived from expert elicitation. Results Cigarette manufacturers recognized that cigarettes were deadly and addictive before 1964. Manufacturers have had the technical capability to lower cigarette nicotine content for decades. Our model projected that a standard implemented in 1965 could have averted 21 million SADs (54% reduction) and 272 million LYLs (64% reduction) from 1965 to 2064, a standard implemented in 1975 could have averted 18.9 million SADs and 245.4 million LYLs from 1975 to 2074, and a standard implemented in 1985 could have averted 16.3 million SADs and 211.5 million LYLs from 1985 to 2084. Conclusions Millions of premature deaths could have been averted if companies had only sold VLNCs decades ago. FDA should act immediately to implement a VLNC standard. Implications Prior research has shown that a mandated reduction in the nicotine content of cigarettes could reduce the prevalence of smoking and improve public health. Here we report that cigarette manufacturers have had the ability to voluntarily implement such a standard for decades. We use a well-validated model to demonstrate that millions of smoking attributable deaths and life-years lost would have been averted if the industry had implemented such a standard.

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