Examining the Effects of Advertising, Packaging and Labeling on Perceptions, Use and Exposure of Combustible Tobacco Products
Institution: University of Pennsylvania
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Project 1: The effects of cigarette package color on smoking behavior, exposure and risk perception when using low nicotine content cigarettes
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Project 1 Abstract:
The US FDA has the authority to regulate cigarette nicotine levels. Cigarettes with reduced nicotine content decrease dependence and toxicant exposure, suggesting potential public health benefits of mandating a low nicotine product standard. These findings, however, come primarily from studies using investigational low nicotine content cigarettes in basic packaging with no accompanying marketing campaign. Thus, there is no data currently available to inform the regulation of how these products are marketed—a domain also under the FDA’s authority, an area likely to be manipulated by the tobacco industry, and a potential opportunity to maximize the regulatory impact of mandated nicotine reduction. In a regulated environment where nicotine content is reduced to the same level across all cigarettes, the tobacco industry will likely rely on marketing, and specifically packaging—the “final communication vehicle”—to express brand image, promote sales, and implicitly convey brand attractiveness, quality and health appeals. The industry previously manipulated the packaging of “light” cigarettes using lighter colored packages to falsely imply that these products were less harmful than regular cigarettes. If low nicotine content cigarettes utilize similar misleading packaging, this may create perceptions of reduced harm that undermine benefits of nicotine reduction by increasing product use and exposure.

Tobacco control advocates argue that plain packaging should decrease smokers’ beliefs about the safety of certain colored cigarette brands, and may also make cigarette brands less appealing or satisfying. However, studies have not examined how plain cigarette packaging will affect smoking behaviors when nicotine content in the cigarette is significantly lowered. Thus, research evaluating packaging effects on smokers’ use of low nicotine content cigarettes and their exposure to toxic constituents is critically needed to inform tobacco control policy decisions before these products are mandated and widely marketed.

This project seeks to evaluate the effects of low nicotine content cigarette packaging on two primary outcomes: smoking behavior (i.e., daily cigarette consumption and puffing behavior) and biological toxicant exposure. We will also explore how low nicotine content cigarette packaging affects product risk perceptions and subjective ratings to determine if these outcomes mediate packaging effects on smoking behaviors. The proposed study will be the first to examine low nicotine content cigarettes in the context of cigarette packaging using rigorous behavioral, biological, subjective and psychological panels of outcomes. Our cigarette package manipulations will examine both tobacco industry approaches and promising public health initiatives that will provide essential empirical evidence to inform future FDA regulation.