

Beyond Intended Effects: A Comprehensive Evaluation of the Dutch E-cigarette Flavor Ban on User Behavior and Market Responses

Introduction: The appeal of e-cigarettes raises public health concerns as e-cigarette use is not risk-free^{2,3}, and may serve as gateway to cigarette smoking^{4,5}. In response to these concerns, the Dutch government implemented a ban on flavored e-cigarettes, which are particularly appealing⁶. The ban limits e-cigarette products to tobacco flavors and unflavored options only, aiming to deter initiation among non-users and encourage existing users to quit. However, loopholes in the ban and market responses could undermine the ban's intended effects, particularly among existing e-cigarette users. In other jurisdictions with similar bans, users have reported obtaining illicit products despite the restrictions. Furthermore, the availability of flavored alternatives may lead to shifts in product preferences rather than cessation. This study evaluates the reactions of e-cigarette users to the Dutch flavor ban, taking into account the continued availability of alternative products, such as waterpipe, cigars and cigarillos. **Study Design:** This study will employ a retrospective cross-sectional survey targeting individuals aged 13 and older who were using e-cigarettes before the ban and have either continued or ceased usage since then. We plan to enroll 400 adolescents and young adults (13 – 24 years) and 400 adults (25+ years). Data collection will focus on patterns of nicotine product use before (retrospectively) and after the flavor ban (currently). This will enable us to assess changes in product type, product flavor, and use frequency. **Results:** Proportions and confidence intervals of various outcome measures will be presented, including reductions in e-cigarette use, attempting to quit, quitting, product switching, flavor switching, the continued use of banned flavors, and flavor purchase locations. Differences in behavior change outcomes between the younger and older age group will be assessed using chi-square tests. **Conclusion:** This study aims to identify the implications of a e-cigarette flavor ban on nicotine use behavior with the goal of informing further policymaking to prevent unintended outcomes. Additionally, it seeks to identify which age group is most impacted by the ban, potentially guiding targeted interventions in helping users quit. These insights can be used to maximize the benefits of policy change, both in the Netherlands and in other countries considering similar health measures.