The National Academies of SCIENCES • ENGINEERING • MEDICINE

HEALTH AND MEDICINE DIVISION BOARD ON POPULATION HEALTH AND PUBLIC HEALTH PRACTICE

Committee on Health Effects and Patterns of Use of Premium Cigars

Preliminary Research Questions

The committee will solicit input from stakeholders on the preliminary list of research questions subject to the literature review. The final determination of specific questions to be answered is the responsibility of the committee. The questions will guide the literature review and may include:

Patterns of Use:

- What is known about the demographic and socioeconomic characteristics of users of "premium" cigars? What are the characteristics of users in terms of age, gender, race, ethnicity, educational attainment, and income? How are these characteristics similar to or different from characteristics of users of other cigar subtypes and other tobacco products?
- What is known about use characteristics among users of "premium" cigars in terms of quantity of cigars used, frequency of use, and depth of inhalation? How and where do "premium" cigar users obtain these products? How are these characteristics similar to or different from those of users of other cigar subtypes?
- How do risk perceptions of "premium" cigars differ from those of other cigar subtypes or other tobacco products?
 - How do risk perceptions of "premium" cigars vary by demographic groups (e.g., men vs. women; adolescents vs. adults)?
 - o How do variations in risk perceptions affect use patterns?
- What is known about co-use of "premium" cigars and other tobacco products? How do those who use "premium" cigars only (mono-product) differ from users of "premium" cigars in conjunction with (dual use) other cigar subtypes and/or other tobacco products in terms of age, gender, race, ethnicity, educational attainment, income, and use of other addictive substances?
- What is known about the characteristics of "premium" cigars that cause people to start using them and continue using them? How are those characteristics similar to or different from characteristics of other cigar subtypes and other tobacco products?
- What is known about the use of "premium" cigars among vulnerable populations such as youth, racial/ethnic minorities, individuals of low socioeconomic status, pregnant women, people with disabilities, LGBTQ, and people with mental illness?

Are there particular features of "premium" cigars, either with the product itself or in the way the products are packaged and/or marketed, that would be considered appealing or unappealing to youth?

Health Effects of Users:

- What are the acute health effects of "premium" cigar use in terms of circulatory, respiratory, oropharyngeal, and other health outcomes?
- What are the long-term adverse health effects of "premium" cigar use in terms of cancer, circulatory and respiratory diseases, and other health conditions? How are these health effects similar to or different from health effects of other cigar subtypes and other tobacco products?
- How do the health effects of "premium" cigar use vary by the following factors?
 - o Frequency and intensity of use
 - Population subgroups and/or demographic characteristics of those who use them
 - Concurrent use of other tobacco products
 - Pre-existing medical conditions
 - Other factors
- What is known about biomarker exposure from "premium" cigar use in terms of exposure to harmful and potentially harmful constituents including nicotine, tobacco-specific nitrosamines, volatile organic compounds, and polyaromatic hydrocarbons? What are the adverse health effects of these exposures?
- How does the addition of flavors alter the smoke's harmful and potentially harmful constituent (HPHC) profile? How does this affect the health effects of "premium" cigars?
- Are the chemical constituents present in cigarette smoke similar to those that are found in "premium" cigars or other cigars? If so, will "premium" cigars or other cigars pose similar hazards as cigarettes?
- Will a multi-product user be exposed to a different HPHC smoke profile or different health impacts compared to a sole- "premium" cigar user? How does the pharmacokinetics of "premium" cigars compare to other cigar subtypes and to other tobacco products?

Health Effects in Non-Users:

• What are the short- and long-term health effects (cancer and noncancer) of secondary and tertiary exposure to "premium" cigar smoke? How do these differ from the short- and long-terms effects of secondary exposure to other subtypes of cigars and to other tobacco products? How do these differ by subgroups (e.g., youth vs. adults)?

• Are there unique chemicals/toxicants that are delivered to non-users who are exposed to "premium" cigar smoke versus smoke from other cigar subtypes?

Abuse Liability:

- What is known about the abuse or addiction potential associated with "premium" cigars? What are the characteristics of users who are more likely to become addicted to or abuse "premium" cigars, in terms of age, gender, race, ethnicity, educational attainment, income, and use of other addictive substances? How are these characteristics similar to or different from characteristics of users of other cigar subtypes and other tobacco products?
- What is known about the pharmacokinetics of plasma nicotine in "premium" cigar smokers in prescribed and ad libitum smoking regimens?
- What is known about the subjective effects of "premium" Cigar users after
 prescribed and ad libitum smoking regimens (e.g., dependence, withdrawal,
 liking,)? How do these results compare to other cigar subtypes and to other
 tobacco products?
- What is known about the inhalation of smoke during "premium" cigars use?
 - O How does the inhalation of smoke during "premium" cigar use compare to cigarettes and other cigar subtypes? How do the effects of inhalation differ by tobacco use status (i.e. those who do not have a history of other tobacco product use vs those that do)?
 - O Are there subgroups of "premium" cigar users who are more/less likely to inhale the smoke when using "premium" cigars? If so, how do these subgroups differ in terms of age, gender, race, ethnicity, educational attainment, income, and use of other addictive substances? How are these characteristics similar to or different from characteristics of users of other cigar subtypes and other tobacco products?

Measurements Needs:

- Due to the varying sizes of cigars, what is the most accurate way to measure exposure?
- What are best practices in quantifying the long-term health risks of "premium" cigar use and secondary exposure to "premium" cigar smoking?
- Are there specific biomarkers and clinical endpoints should be used to assess the health effects of "premium" cigar use? If so, what clinical endpoints should be used to assess the impact of "premium" cigar smoke on user health? How do biomarkers and clinical endpoints associated with "premium" cigar use compare to use of other cigar subtypes?
- What are best practices for HPHC testing in "premium" cigars?