PMI SCIENCE
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Characterizing patterns of tobacco/nicotine-containing product use in the population

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CORESTA – PUB Sub-Group Meeting, Austria, October 8, 2017

REDUCED-RISK PRODUCTS (RRPs)

Reduced-Risk Products (“RRPs”) is the term PMI uses to refer to products that present, are likely to present, or have the potential to present less risk of harm to smokers who switch to these products versus continued smoking. PMI”s RRPs in various stages of development, scientific assessment and commercialization. Because our RRPs do not burn tobacco, they produce far lower quantities of harmful and potentially harmful compounds than found in cigarette smoke.

Outline

- Post-doctoral fellowship program
- Background
- Project aims
- Proposed activities
- Summary

R&D RRP Postdoctoral Fellowship Program

Supervisor/Mentor

Trainings & e-learning

2 years research project

Conferences and publications

Internal symposiums

Background

- 22% of the world's population aged 15+ (~1.1 billion) are smokers (WHO, 2017)
- Measuring patterns of tobacco use has typically involved assessment of cigarettes
- Accurately quantifying overall tobacco consumption and exposure is becoming more challenging (Hitcman et al., 2017)

Why?

Background – Product use

Background – Estimates of multiple product use

- Report and review by Public Health England (2015)
  - 60% current e-cigarette users were also cigarette smokers

- PATH study (USA) Wave 1 (Kasza et al., 2017)
  - 37.8% of adult tobacco users were multiple product users
    - 22.5% dual users (cigarettes + e-cigarettes most prevalent combination)
    - 15.3% poly-users (cigarettes + e-cigarettes + hookah most prevalent combination)

- PMI post-market cross-sectional survey Japan (Van der Plas et al., 2017)
  - 36.4% of 1000 IQOS users reported multiple use
    - Dual use with cigarettes (20.3%); e-cigarettes (1.5%); Heat-not-burn Ploom (3.8%)
    - 9.3% reported poly-use (IQOS + cigarette + e-cigarette + others)

Background – Challenges

- Public health guidelines calls for standardizing constructs and procedures for defining the collection, analysis and dissemination of tobacco-related data (IARC, 2008; GAT, 2011; WHO, 2015).

- A lot of population surveys have not assessed and differentiated between consumption of traditional combustible products and novel products (e-cigarettes, heat-not-burn products etc.) (Coleman, 2017)

- No meaningful way to compare and quantify different types of product use and tobacco exposure across surveys (Pearson, 2017)

Background

- Novel products are different in design and consumption to cigarettes
- Varying characteristics of use = variability in individual pattern of use and transitions between products
- Multiple complex patterns (e.g. ever use, former use, current use [quantity per day/occasional], dual use, poly-use) (Pearson, 2017).
- Complicates measurement of exposure to tobacco/nicotine and related population health impact and outcomes

Project Aims

Identification and assessment of data collection and statistical tools to capture and characterize the pattern of tobacco/nicotine containing product use in the population

- Tools to accurately describe prevalence of use and exposure across different products
- Tools to evaluate and analyze patterns and transition in use across different products over time

Proposed activities

1. Review of existing tools used to assess product use in surveys and studies

2. Development and assessment of standardized tool/items to capture and define range of product use behaviors

3. Review of analytical approaches to characterize transitions in product use patterns and trajectories

4. Analysis of population surveys and datasets to estimate transitions probabilities in patterns of product use over time

Summary - Characterizing patterns of product use

- A key part of tobacco regulation
  - Epidemiological monitoring of tobacco/nicotine consumption
  - Inform future product use trajectories, associated social, economic, and health outcomes, and tobacco harm reduction efforts
- Implications for:
  - Tobacco industry
  - Researchers and scientists
  - Regulators
  - Public health and policy

THANK YOU!

QUESTIONS?

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