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POS3-36

LONGITUDINAL CHANGES IN NON-CIGARETTE TOBACCO PRODUCT PROMOTION NEAR NEW JERSEY HIGH SCHOOLS

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SIGNIFICANCE: Existing research on tobacco promotion at the point-of-sale focuses primarily on cigarette marketing. However, use of non-cigarette tobacco products, such as cigarillos, smokeless tobacco, and electronic cigarettes (e-cigs), exceeds rates of smoking among youth. This study examines longitudinal changes in the accessibility and promotion of these other tobacco products in a cohort of tobacco retailers near high schools in New Jersey. **METHODS:** In 2015, research staff visited all tobacco retailers within a half-mile of 26 randomly-sampled high schools in New Jersey (n=183 retailers). We documented product availability for cigarillos, smokeless tobacco, and e-cigs, as well as the presence of exterior and interior advertising. All stores were revisited one year later using an identical data collection instrument. Descriptive statistics and chi-square tests highlighted significant differences between years. **RESULTS:** Cigarillos were available in 89.6% of tobacco retailers in 2016, a slight increase from 84.2% one year prior. E-cigs experienced a large and significant decline in availability from 2015 to 2016 (58.5% to 47.0%, p=0.03). In total, 48 retailers stopped selling e-cigs between study years. Smokeless tobacco products were available in approximately 27% of retailers in both years. Although e-cigs were advertised on store exteriors more than any other non-cigarette tobacco product, the prevalence of exterior e-cig advertising fell from 31.2% in 2015 to 20.8% in 2016 (p=0.02). Interior cigarillo advertising increased substantially between years, from 15.3% to 23.5% of stores (p=0.04). **CONCLUSIONS:** Industry and retailer promotional activities at the point-of-sale reflect consumer preferences and may influence use. Cigarillos appear to be increasingly marketed in retailers near schools, while promotion of e-cigs seems to be declining. Future studies should examine the impact of point-of-sale advertising on youth use of non-cigarette tobacco products.

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POS3-37

MIXING TOBACCO AND CANNABIS: A CROSS SECTIONAL POPULATION STUDY

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INTRODUCTION: With many jurisdictions in the process of liberalizing marijuana laws, there is concern that increased marijuana use will maintain and increased tobacco use. The purpose of this study is to examine joint use of tobacco and cannabis among a representative sample of Ontario adults. **METHODS:** The CAMH-Monitor is a cross sectional survey of 1005 Ontario (18+) adults selected using random digit dialing. Univariate predictors of past year cannabis use, tobacco use, and joint tobacco and cannabis use ("In the past year have you ever used cannabis, marijuana or hash mixed with tobacco") were assessed. Logistic regression was used to examine likelihood of use, controlling for potential confounders. **RESULTS:** In 2015, 1.9% of Ontario adults used cannabis and tobacco together. In the past 12 months, 31% of cannabis users reported mixing cannabis with tobacco (16% of tobacco nonsmokers and 54% of current past month tobacco smokers). Adjusting for potential confounders, past year tobacco users who had also smoked cannabis were more likely to mix the two (OR: 6.1; 95% CI: 2.7, 14.3). 38% of current tobacco smokers used cannabis in the past year compared to 10% of tobacco nonsmokers (AOR: 5.0; 95% CI: 3.7, 6.6). Of current tobacco smokers, 14% used cannabis for medical purposes compared with 2% of tobacco nonsmokers (AOR: 2.0; 95% CI: 1.2, 3.5). 22% of cannabis users reported using an e-cigarette to smoke cannabis. **CONCLUSION:** Tobacco smokers are significantly more likely to use cannabis for both recreational and medicinal purposes. However, a significant number of tobacco nonsmokers are mixing tobacco with cannabis, without considering themselves to be smokers. The prevalence of tobacco use may be

underestimated if mixing with cannabis is not assessed. Future research should assess if dual use is associated with maintenance of tobacco use.

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USE OF WASTEWATER-BASED EPIDEMIOLOGY TO MONITOR NICOTINE CONSUMPTION IN AUSTRALIAN AND NEW ZEALAND COMMUNITIES

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SIGNIFICANCE: Nicotine use in the form of tobacco smoking is a substantial contributor to the disease burden in Australia and New Zealand. Population monitoring of tobacco use generally relies on self-report survey data. Wastewater-based epidemiology is an alternative method to estimate population level consumption of substances by analysing representative samples of wastewater collected from sewage treatment plants for drug target residues. Few studies have applied the method to measuring nicotine use in populations. This study used wastewater-based epidemiology to examine levels of nicotine use in Australia and New Zealand to demonstrate its feasibility to examine factors contributing to community level differences in nicotine use. **METHODS:** Wastewater samples were collected between March and May 2015 from 14 sewage treatment plant catchments in Australia (11 urban and three rural communities) and two urban catchments in New Zealand. These catchments covered ~40% of the Australian population and 32% of the New Zealand population. The metabolites of nicotine (cotinine and trans-3'-hydroxycotinine) and alcohol (ethyl sulfate) and were quantified using liquid chromatography coupled with tandem mass spectrometry. A multilevel model regression was used to examine factors influencing nicotine use. **RESULTS:** The mean daily consumption of nicotine was 2044 mg/1000 people in Australia and 1236 mg/1000 in NZ (difference not significant). Nicotine consumption was inversely related to catchment size (p<.001) and significant differences in nicotine levels between some jurisdictions were observed. Nicotine levels were highest in samples collected on Sundays and Mondays reflecting greater use on weekends. Community levels of nicotine and alcohol metabolites were highly correlated (p<0.01). **CONCLUSIONS:** Wastewater-based epidemiology is a feasible method of monitoring population nicotine consumption. Future research that includes non-nicotine markers of tobacco use, could help monitor population level switching from smoking tobacco to vaping nicotine in addition to overall nicotine use.

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NICOTINE AND TAR REDUCTION EFFECT BY ADDITION OF A SILICEOUS CATALYST TO TOBACCO. COMPARATIVE STUDY OF COMPOSITION OF THE MAINSTREAM SMOKE OF FIVE OF RYO TOBACCO BRANDS AND THEIR COUNTERPART CIGARETTE TOBACCO BRANDS

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A comprehensive analysis of the mainstream smoke (smoking under the of ISO conditions) both the gas fraction and the particulate matter from 5 brands of tobacco commercialized in Spain, both roll-your-own (RYO) and factory-made-cigarette (FMC) has been carried out. Tubes with no vent holes were used for both types of tobaccos. The results show that RYO tobaccos generate, in general, higher yields for the compounds analyzed in the condensed fraction than the counterpart cigarette tobaccos of the same brand. The average CO yield of the five RYO brands for is 27.5 mg/g smoked tobacco, whereas for cigarette tobaccos such average is 19.2 mg/g smoked tobacco. Average nicotine and tar in the traps (in mg/g smoked tobacco) is 2.42 and 19.92, respectively for the five RYO tobaccos and 1.78 and 14.47 for the five cigarette brands. Similar results are obtained for the rest of compounds and families considered. It can be concluded that RYO tobaccos yield much higher amounts of most compounds an-