

POS1-130 PERCEPTIONS AND BEHAVIORS OF ROLL-YOUR-OWN CIGARETTES AMONG UK RYO SMOKERS

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A quarter of smokers in the UK now smoke roll your own cigarettes but little is known about their attitudes, behaviour and smoke intake in comparison with smokers of manufactured cigarettes. This presentation draws on data from 29 smokers of the most popular rolling tobacco brand in the UK in comparison with 131 smokers of 7 manufactured cigarette brands spanning the range of tar yields allowed in the UK. The study examined a number of different measures of smoking including self-reported smoking and quitting behaviour, puffing parameters when using the CReSSmicro puffing topography device over a 24 hour period, cigarette butt analysis using imaging to estimate smoke intake and measurement of a number of different biomarkers. It also examined machine smoke deliveries of nicotine, carbon monoxide, tar, tobacco-specific nitrosamines and polyaromatic hydrocarbons using the ISO and Health Canada's Modified ISO protocols as well as using human puffing parameters derived from the CReSSmicro data. The feasibility of doing such a study with roll your own cigarettes is discussed including the particular issues relating to use of the CReSSmicro device. The size (such as diameter of the cigarette) and puffing parameters used for machine tests of roll your own cigarettes will be compared with those measured from the roll your own smokers in this study. Data on puffing parameters will be compared with that of manufactured cigarette smokers. Cotinine and carbon monoxide data from the roll your own smokers will be compared with that from smokers of the manufactured cigarettes, controlling for cigarette consumption.

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POS1-131 SETTING MAXIMAL LIMITS FOR TOBACCO-SPECIFIC N-NITROSAMINES EMISSIONS IN CIGARETTE SMOKE

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The emissions of smoke toxicants, including tobacco-specific N-nitrosamines NNN and NNK, are predominantly determined by tobacco blend and cigarette design. To promote the implementation of the provisions of the WHO Framework Convention on Tobacco Control (FCTC), especially Articles 9, 10, and 11 which emphasize product regulation as a pillar of global tobacco control efforts, the WHO TFI/IARC Working Group I has been charged to develop recommendations on maximal limits for select toxic constituents in the mainstream smoke of cigarettes. This presentation will discuss criteria for selecting smoke constituents for maximal limits consideration, including scientific evidence on toxicity, availability of technology, or other approaches that can reduce the level of specific constituents per mg nicotine in the smoke, and the substantial variability in constituent yield across the brands on the market. In order to standardize the levels of toxicants across brands, they are expressed per mg nicotine yield for the brand. The variation of NNN and NNK per mg nicotine is defined using data from an international sample of Philip Morris brands published by Counts et al., 2004. Examination of the levels of NNN and NNK, measured using the Canadian intense machine smoking protocol, reveals that the median levels of NNN and NNK in the Philip Morris brands tested are approximately 114 and 72 nanograms per mg nicotine, respectively. The maximal limit values would be applied to the mean value measured for a given brand. As additional scientific information and data on constituents from a wider range of brands and geographic areas become available, these recommendations are likely to be modified and extended to other constituents.

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POS1-132 A 32-COUNTRY COMPARISON OF WORKPLACE TOBACCO SMOKE EXPOSURE

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Background: The Framework Convention for Tobacco Control (FCTC) calls for countries to adopt measures providing protection from exposure to tobacco smoke. The first comprehensive nationwide policies took effect in 2004, although the vast majority of nations lack comprehensive policies. The aim of this study was to conduct indoor air quality measurements in 30 countries with different regulations to provide a comparison of secondhand smoke levels.

Methods: The TSI Sidepak was used to measure the level of particulate matter less than 2.5 microns in diameter (PM2.5) in pubs, restaurants, retail outlets, transportation venues, and other workplaces in countries of varying economic development around the world. PM2.5 are harmful fine particles that are easily inhaled deep into the lungs and are emitted in large quantities from burning cigarettes. Collaborators in each country were trained through a joint effort between the International Agency for Research on Cancer and Roswell Park Cancer Institute. Countries in this study include Armenia, Australia, Belgium, Brazil, Canada, China, Egypt, France, Germany, Greece, Ireland, Laos, Lebanon, Malaysia, Mexico, New Caledonia, New Zealand, Pakistan, Poland, Portugal, Romania, Russia, Singapore, Spain, Syria, Thailand, Tunisia, United Kingdom, United States, Uruguay, Venezuela, and Vietnam.

Results: The PM2.5 level in establishments where smoking is permitted are 9 times greater than the level in places where smoking is prohibited and on average these levels were far greater than the US Environmental Protection Agency has concluded is harmful to human health. The only countries with acceptable indoor air quality on average were the two with national comprehensive smoke-free air policies, New Zealand and Ireland.

Conclusions: Levels of indoor air pollution in places that allow smoking are typically at hazardous levels. Comprehensive smoke-free regulations are the most effective strategy to reduce secondhand smoke exposure. These findings underscore the importance of compliance with the FCTC provision for protection from exposure to tobacco smoke.

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POS1-133 IMPACT OF EXCISE TAX INCREASE AND PASSAGE OF COMPREHENSIVE CLEAN INDOOR AIR LAW ON TOBACCO USERS' UTILIZATION OF TREATMENT

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Studies have shown that increased cigarette excise taxes and clean indoor air laws decrease tobacco consumption and smoking prevalence, but none have looked at whether such policies impact utilization of cessation programs. In 2005, Washington State enacted a 60-cent per pack cigarette excise tax increase in July and a public smoking ban in December. This study analyzed enrollment data of WA residents who registered for the Free & Clear telephone-based program for two months before and four months after these events to assess characteristics of enrollees and compare enrollment volumes with the same time periods the previous year. Analysis of 6932 registrants from 5/1/05-8/31/05 demonstrated significant differences in mean number of cigarettes smoked per day by enrollees in the two months before (13.9) and two months after (15.4) the excise tax increase (p<.0001). The proportion of enrollees in pre-contemplation stage increased after the tax went into effect (p=.01). Among 6288 enrollees from 9/8/05-1/5/06, those who called in the two months after the ban passed, similar to those after the tax, were found to be heavier smokers compared to those who registered prior to the law (18.1 vs. 16.7 cpd; p<.0001). In contrast to the excise tax, a marked increase in the proportion of enrollees who were in action or maintenance stage was found following passage of the smoke free law (11.6% vs. 8.4%, p<.0001). Enrollment changed in the month following the excise tax but was not different than the year before (both 5% increase) although enrollments increased 77% in the month following passage of the public ban compared to 60% the year before. Of 5,335 registrants from 12/8/05-3/31/06 asked whether their decision to call was related to the new smoke-free law, nearly a fifth (19.7%) said yes. Increased cigarette taxes and smoke-free policies may lead more extrinsically motivated, heavier smokers to seek cessation services through a quit line. Further research on population-based tobacco control efforts can inform how treatment programs can modify their staffing and tailor their services to meet changes in demand for those seeking treatment as a result of these initiatives.

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