cigarette" in Argentina, Chile, Colombia, México and Perú from June 2012 through June 2017. We selected these countries based on population size, tobacco use prevalence and legislation regarding e-cigarettes. We also searched for terms of specific brands among the top 25 e-cigarette related searches in the five countries.

Results: Searches regarding e-cigarettes have increased over the last five years in all 5 countries. There are clear differences between countries. Argentina and Mexico, the two countries where e-cigarettes are banned have the highest frequency of searches, together with Chile that has the highest prevalence of tobacco use in the Region. It is noticeable a peak in searches in Argentina during May 2016, which is explained by national press coverage of the weak enforcement of the e-cigarette ban during this time period. Popular brands appeared in the top 25 related search terms and included general e-commerce sites, e-cigarette specific marketplace sites, and product manufacturer specific sites.

Conclusions: Identifying search trends around e-cigarettes can enhance the evidence base for the changes in the public perceptions of e-cigarettes in Latin America. Comparisons across countries with different tobacco control strategies could be important for understanding how to regulate this emerging product.

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12:30-14:00

PS-1096-4 A proportional mortality study on smoking and lung cancer using different causes of deaths for dead controls

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Background: Proportional mortality studies using reliable death registration and smoking data can be used to assess the effects of smoking and quitting. Deaths from smoking-induced causes are treated as cases, but the selection of other causes to define controls differs. We conducted a proportional mortality study on smoking and lung cancer using four definitions of controls.

Methods: We included 81% of all deaths aged 30+ years in 1998 in Hong Kong. Cases were lung cancer deaths (N=2909). We defined controls as deaths from non-smoking related causes according to:

- i) Liu (Mainland) 1998 (n1=4898),
- ii) Alam (India) 2013 (n2=2944),
- iii) Sitas (South Africa) 2013 (n3=6076) and
- iv) US Surgeon General's Report 2014 (USSG) (n4=4365).

Logistic regression yielded AORs of lung cancer, adjusting for sex and age at death.

Results: In middle age (35-64 years), AOR (95% CI) for lung cancer was 2.79 (1.58-4.92) in ex-smokers (5+ years) and 2.65 (1.87-3.78) in current smokers (ptrend: 0.26) using controls based on Liu. The corresponding AORs were 1.87 (1.00-3.56) and 2.37 (1.58-3.58) (p^{trend}: 0.009) for Alam, 2.40 (1.42-4.04) and 4.31 (3.00-6.24) (p^{trend}: <0.0001) for Sitas, and 1.99 (1.14-3.46) and 3.39 (2.31-5.01) (p^{trend}: <0.0001) for USSG. In old age (65-84), the corresponding figures for Liu, Alam, Sitas and USSG were 3.31 (2.54-4.34), 5.51 (4.26-7.17), 3.27 (2.44-4.41) and 5.40 (4.04-7.24) in ex-smokers, and 3.39 (2.63-4.37), 5.38 (4.23-6.87), 3.19 (2.44-4.18) and 5.35 (4.12-6.97) in current smokers (all p^{trend}: <0.0001).

Conclusions: The effect size of smoking on lung cancer using different controls was similar in old age but varied in middle age.

Benefits of quitting were observed in all except Liu's controls. For proportional mortality studies, the choice of the most appropriate causes of deaths to define controls needs to be cautious, as the effects or lack of effects of smoking on different diseases vary in different populations.

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12:30-14:00

PS-1097-4 Online informatics system of key outcome indicators to support tobacco control planning, surveillance and reporting

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Background and challenges to implementation: Formative research suggested that many stakeholders do not have ready access to reliable and up-to-date information on population survey results due to a variety or reasons including knowledge, permission to access, technical skills to analyse surveys and cost. **Intervention or response:** A dynamic database-driven informatics website-the Tobacco Informatics Monitoring System, or TIMS-was built with a user friendly and easy-to-navigate front end to facilitate stakeholders' use of tobacco survey data in their program planning, decision making, surveillance and reporting.

Results and lessons learnt: The live site, tims.otru.org, contains over 140 key indicators organized under broad themes including Tobacco Use, Prevention, Cessation, Protection, Public Opinion and Electronic Cigarettes. From these indicators, users can navigate to tens of thousands of unique data points including obtaining results by population (age, sex, education, occupation, income), geography (national, provincial, sub-provincial), and multiple surveys spanning multiple years. Data can be displayed in tables or in line/bar charts, with dynamic capability to sort/group, print, or download into presentation ready results.

With the advent of evidence-based decision making, the TIMS site has played a key role in providing up to date information on key outcome indicators.

Conclusions and key recommendations: By providing access to regional and national survey results, the TIMS site has the potential to enable new insights into emerging issues and trends. The site facilitates links between health outcome results and the decision making process such as a consideration of health equity issues focusing on priority sub-populations and high-risk geographical areas.

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12:30-14:00

PS-1098-4 Monitoring population nicotine consumption, is wastewater analysis the new frontier?

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Background: Wastewater analysis is a method of routinely sampling the wastewater within a city to detect drug metabolites. Smoking by-products such as nicotine enter the sewerage network via urine excretion of people consuming cigarettes. Concentrations of nicotine and cotinine are calculated at sewerage treatment plants and converted to population consumption estimates. A similar approach has been routinely used to estimate illicit drug