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Date: 28.6.2012 13:39:30

Subject: STAN Bulletin: 10th Edition: 28-June-2012

Smoking & Tobacco Abstracts & News

**STAN Bulletin
10th Edition
28-June-2012**

Editor's note: In the bulletin, in general, I include links to news coverage of studies and related press releases (PR) below the abstract, not 'In the News'. In this edition, a significant, yet likely overplayed *Sci Transl Med* [report](#), by Hicks and colleagues, garners a positive headline from [BBC News](#), 'Smoking vaccine' blocks nicotine in mice brains', and even more encouraging PR from [ScienceDaily](#), 'New Vaccine for Nicotine Addiction', but the Editor's Summary from *Sci Transl Med* puts the study in better perspective: "When [the study] mice were injected with nicotine, the antibodies effectively sequestered this compound in the blood: nicotine concentrations in the brain were only 15% of those in brains of mice that did not express the antibodies. Furthermore, the usual nicotine-induced changes in blood pressure, heart rate, and locomotor activity were abolished or greatly reduced in mice that expressed the anti-nicotine antibodies. Further work will be needed to test this vector in a rodent model trained to self-administer nicotine, because the mice in this study were not addicted to the drug. Successful results from such a test would then support investigating this approach in clinical trials." Promising, perhaps, but no substitute for cessation.

Stan Shatenstein

In the News:

- Australia: [Customs Act: Tobacco smugglers could face jail under new legislation](#)
- India: Uttar Pradesh: [66% of women, nearly 60% of men exposed to passive smoking; High risks](#)
- UK: Wales: [More women smoke while pregnant; Reduction target warning: Report: Tobacco & health in Wales 2012](#)
- US: [Some colleges move toward absolute bans on smoking on campus](#)
- US: [Endocrine Society Meeting: SHS Linked to Type 2 Diabetes & Obesity](#)
- US: NY: [Roll-your-own cigarettes win tax fight](#); WA: [Judge blocks RYO tax](#)
- US: NY/KS: [States pull plug on E-cigarettes for youth; Ban sales for under 18s; Law doesn't go far enough](#)

Noteworthy:

"The comprehensiveness and scale of the tobacco industry's response to the FCTC suggests that it is reasonable to speak of a "globalisation of tobacco industry strategy" in combating the development of effective tobacco control policies. This highlights the importance of moving beyond national and local case studies of tobacco industry influence to develop a greater understanding of the regional and global dynamics of TTC operations." [Weishaar H et al. Global Health Governance and the Commercial Sector: A Documentary Analysis of Tobacco Company Strategies to Influence the WHO Framework Convention on Tobacco Control, [PLoS Med](#)]

"Participants' willingness to place wider social benefits ahead of their personal convenience reflects the internal conflict many feel about smoking: they need nicotine, yet resent this need; they wish to be smoke-free but do not want their decisions dictated. Underlying these competing attitudes, a majority from all groups supported the smoke-free goal because they believed this would bring about a 'better' society. Overall, participants saw smoking as 'something our country could do without'... Exposing the industry's fallacious reasoning could help the public recognise its propaganda and reject arguments they might otherwise consider. To complement measures that confront industry claims, continuing public debate about the 2025 goal will help normalise tobacco control measures, demonstrate how these empower (rather than disenfranchise) smokers and expose tobacco industry claims as mendacious." [Maubach N et al. 'The times are changing': New Zealand smokers' perceptions of the tobacco endgame, [Tob Control](#)]

In this Edition:

- Addiction - Soneji: US: Susceptibility to Movie Smoking Effects: Exploring the Impacts of Race & SES
- Addict Behav - Ebbert: ST: Comparison of Three Smokeless Tobacco Dependence Measures
- Addict Behav - Gabrhelik: Czech Republic: Unplugged: Student sex-specific smoking behavior trajectories
- Adv Pharmacol Sci - Froeliger: fMRI: Nicotine Effects on Emotional Reactivity in PTSD & Non-PTSD Smokers
- Arch Gyn Ob - Arffin: Malaysia: ETS & stress as miscarriage & preterm births risk factors
- Arch Toxicol - Schubert/Luch: Waterpipe smoking: role of humectants in release of toxic carbonyls
- CJPH - Hanusaik: Canada: TC Level & Smoking Prevalence: Public Health Organization Survey
- Chem Res Tox - Müller: Nrf2: Friend & Foe in Preventing CS-Dependent Lung Disease
- Cien Saude Colet - Riquinho: Brazil: Health, environment & tobacco cultivation working conditions: literature review
- Cochrane Data Syst Rev - Reda: Healthcare financing systems to increase tobacco dependence treatment use
- Environ Health Prev Med - He: China: CNTC & State Tobacco Monopoly Administration: Overview
- FASEB J - Laubenthal: UK/Greece: CS-induced genome stability alterations in F1 offspring cord blood
- Front Pharmacol - Harrod: Prenatal IV Nicotine Exposure & Increased Sensitivity to Methamphetamine Reinforcement
- Health Pol - Brailion: France: Tobacco lobby reaction to increasing cigarette prices
- Healthc Q - Paradis: Canada: SK: Economic impact of drug plan listing delay: Varenicline: Cessation treatment
- IJERPH - Rath: US: Cigarette Litter: Smokers' Attitudes & Behaviors
- JACH - Primack: US: Tobacco, marijuana & alcohol use in university students: cluster analysis
- J Cancer Surviv - Underwood: US: Persistent smoking & other tobacco use after tobacco-related cancer diagnosis
- JCO - Jemal: US: Increasing Lung Cancer Death Rates Among Young Women in Southern & Midwestern States
- J Environ Pub Health - Mushtaq: US: Concurrent Use of Cigarettes & Smokeless Tobacco among US Males & Females
- J Environ Pub Health - Wilson: US: TC intervention impact on smoking initiation, cessation & prevalence
- J Psychopharm - Ashare: Varenicline: 21 days vs. placebo effects on smoking behaviors & urges
- Mutagenesis - Vande Loock: Belgium: Paternal smoking & preterm oxidative & DNA damage slower repair
- NEJM - Loeb/Winickoff: US: Joint Commission's New Tobacco-Cessation Measures
- Pain - Goesling: Depressive symptoms mediate smoking-related pain symptoms
- PLoS Med - Weishaar: Global Health Governance & the Commercial Sector: TTC Strategies to Influence the FCTC
- PLoS One - Al-Houqani: UAE: Tobacco smoking using midwakh an emerging health problem
- Prev Med - Bonevski: Australia: Socially disadvantaged smoker views of cash incentive acceptability
- Salud Pub Mex - Samet: FCTC: Global perspective; Hammond: Health warnings; Colledge - US/Mexico: Illicit trade
- Sci Transl Med - Hicks: Gene Encoding Anti-Nicotine Antibody for Cessation: AAV-Directed Persistent Expression
- Tob Control - Barrientos-Gutierrez/Montaldo: Meeting ends by means: protecting children from SHS in research
- Tob Control - Coady: US: NYC: Awareness & impact of graphic PoS tobacco health warning signs
- Tob Control - Maubach: NZ: Changing times: Smokers' perceptions of the tobacco endgame

Abstracts:**Who is Most Susceptible to Movie Smoking Effects? Exploring the Impacts of Race and Socioeconomic Status****Addiction**

[Accepted Article \(Accepted, unedited articles published online for future issues\)](#)

Accepted manuscript online: **22 JUN 2012**

Samir Soneji, Valerie Lewis, Susanne Tanski and James D. Sargent

Abstract**Aims**

This study assesses how race/ethnicity and socioeconomic status (SES) modify the relationship between exposure to movie smoking and having tried smoking in adolescents.

Design

Data come from a cross-sectional telephone survey and were analyzed using logistic regression models. A respondent reporting ever having tried smoking was regressed on exposure to movie smoking, race, socioeconomic status, the interactions of these variables, and family and background characteristics.

Setting

National sample of US adolescents.

Participants

3653 respondents aged 13-18 years.

Measurements

Outcome was if subjects reported ever having tried smoking. Movie smoking exposure was assessed through respondents' reporting having watched a set of movie titles, which were coded for smoking instances.

Findings

The proportion having tried smoking was lower for Blacks (0.32) compared to Hispanics (0.41) and Whites (0.38). The relationship between movie smoking and having tried smoking varied by race/ethnicity. Among Whites and Hispanics exposure to movie smoking positively predicted smoking behavior, but movie smoking had no impact on Blacks. SES further modified the relation among Whites; high SES white adolescents were more susceptible to movie smoking than low SES white adolescents.

Conclusions

Exposure to movie smoking is not uniformly experienced as a risk factor for having ever tried smoking among U.S. adolescents. Whites and Hispanics are more likely to try smoking as a function of increased exposure to movie smoking. In addition, higher socioeconomic status increases susceptibility to movie smoking among Whites. Youth with fewer risk factors may be more influenced by media messages on smoking.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2012.03990.x/abstract>

A Comparison of Three Smokeless Tobacco Dependence Measures

[Addictive Behaviors](#)

Available online **21 June 2012**

Jon O. Ebbert, Herbert H. Severson, Brian G. Danaher, Darrell R. Schroeder, Elbert D. Glover

Abstract

Smokeless tobacco (ST) use is associated with tobacco dependence and long-term adverse health consequences. Clinical and research tools that can accurately assess ST dependence are needed to improve research and treatment of ST users. Measures of ST dependence have been developed to address this need. We used data from a study evaluating the effectiveness of bupropion sustained release for the treatment of ST use (N = 225) to compare the Fagerström Tolerance Questionnaire for Smokeless Tobacco (FTQ-ST) users, the Severson Smokeless Tobacco Dependency Scale (SSTDS), and the Glover-Nilsson Smokeless Tobacco Behavioral Questionnaire (GN-STBQ). We observed that despite the intention of the scale: (1) all scales were significantly correlated with ST cans consumed per week; (2) the FTQ-ST was significantly correlated with serum nicotine and cotinine concentrations and craving; (3) the GN-STBQ and SSTDS were significantly associated with both craving and withdrawal; and (4) none of the scales were significantly associated with ST abstinence. When all of the scales were entered simultaneously in a multivariable analysis, the SSTDS was the only scale independently associated with withdrawal and craving. As when used with cigarette smokers, the FTQ-ST appeared to measure the construct of physical dependence. The GN-STBQ and SSTDS, designed to measure broader

constructs of dependence, were found to predict both withdrawal and craving which may be advantageous in clinical settings. The GN-STBQ and the FTQ-ST did not contribute significantly to the prediction of withdrawal and craving beyond what was accomplished using the SSTDS. The use of the scales is discussed in terms of clinical usefulness and how each scale might assess differing aspects of tobacco dependence.

<http://www.sciencedirect.com/science/article/pii/S0306460312002419>

Also:

Negative mood effects on craving to smoke in women versus men

<http://www.sciencedirect.com/science/article/pii/S0306460312002298>

Neighborhood safety as a correlate of tobacco use in a sample of urban, pregnant women

<http://www.sciencedirect.com/science/article/pii/S0306460312001992>

Associations between indicators of acculturation and tobacco dependence among Spanish-speaking Latino smokers

<http://www.sciencedirect.com/science/article/pii/S0306460312001918>

Sex specific trajectories in cigarette smoking behaviors among students participating in the Unplugged school-based randomized control trial for substance use prevention

***Addict Behav.* 2012 Jun 6. [Epub ahead of print]**

[Gabrhelik R](#), [Duncan A](#), [Lee MH](#), [Stastna L](#), [Furr-Holden CD](#), [Miovsky M](#).

Abstract

OBJECTIVES:

Understanding the developmental pathways and sex differences in cigarette smoking behaviors in adolescents has the potential to positively impact substance abuse prevention and to reduce smoking-related health problems. Using data from the Unplugged school-based prevention trial, we investigated different patterns of smoking behavior development among secondary school students in the Czech Republic.

METHODS:

Growth mixture modeling was used to examine different trajectories in cigarette smoking behaviors among male and female students (N=1874 6th graders; 50.4% male, mean age 11.8years at baseline) participating in the Unplugged school-based randomized control trial for substance use prevention.

RESULTS:

A two-class model characterized cigarette use as a function of sex and Unplugged intervention status. More rapid cigarette use increases were observed in females (OR=1.17, p=0.01 in both rapid/moderate and slow smoking escalator classes) as compared to males. Further, in both classes, more rapid increases in smoking were observed for the control group as compared to the intervention group (OR=1.22, p<0.01 slow escalators; OR=1.54, p=0.08 rapid/moderate escalators). There was no difference in sex distribution when comparing the two classes (OR=1.02, p=0.98).

CONCLUSIONS:

This study adds to a growing literature on developmental and sex differences in cigarette use among adolescents. This research supports additional multi-year prevention strategies aimed at adolescent females and early treatment programs for adolescent smokers to prevent increasing cigarette use with age.

<http://www.sciencedirect.com/science/article/pii/S0306460312002250>

Also:

Latent factor structure of a behavioral economic cigarette demand curve in adolescent smokers

<http://www.sciencedirect.com/science/article/pii/S0306460312002365>

Exposure to peers who smoke moderates the association between sports participation and cigarette smoking behavior among non-White adolescents

<http://www.sciencedirect.com/science/article/pii/S0306460312002122>

Effects of Nicotine on Emotional Reactivity in PTSD and Non-PTSD Smokers: Results of a Pilot fMRI Study

[Adv Pharmacol Sci](#). 2012;2012:265724. Epub 2012 Jun 3.

[Froeliger B](#), [Crowell Beckham J](#), [Feldman Dennis M](#), [Victoria Kozink R](#), [Joseph McClemon F](#).

Abstract

There is evidence that individuals with posttraumatic stress disorder (PTSD) may smoke in part to regulate negative affect. This pilot fMRI study examined the effects of nicotine on emotional information processing in smokers with and without PTSD. Across groups, nicotine increased brain activation in response to fearful/angry faces (compared to neutral faces) in ventral caudate. Patch x Group interactions were observed in brain regions involved in emotional and facial feature processing. These preliminary findings suggest that nicotine differentially modulates negative information processing in PTSD and non-PTSD smokers.

<http://www.hindawi.com/journals/aps/2012/265724/>

Note: Open Access. Full text PDF freely available from link immediately above.

Environmental tobacco smoke and stress as risk factors for miscarriage and preterm births

[Arch Gynecol Obstet](#). 2012 Jun 21. [Epub ahead of print]

[Arffin F](#), [Al-Bayaty FH](#), [Hassan J](#).

Source

Faculty of Dentistry, Centre of Studies for Periodontology, Universiti Teknologi MARA, Level 19, Tower 2, Science and Technology Complex, 40450, Shah Alam, Selangor, Malaysia, drfarha@salam.uitm.edu.my.

Abstract

BACKGROUND: Exposure of pregnant women to environmental tobacco smoke has been shown to be associated with low birth weight. Many studies have suggested that stress have a role in the etiology of preterm birth.

AIMS:

This study carried out from June 2008 to March 2009 to find the relation between environmental tobacco smoke, stress and miscarriage and preterm births.

METHODS:

A total of 33 subjects consisted of multiparous pregnant women that were in their early third trimester were chosen for this investigation. Subjects were divided into test group women with adverse pregnancy outcome, control group women with successful pregnancy. Four ml of unstimulated whole saliva were collected. The concentrations of cotinine and cortisol were evaluated using commercially available ELISA kit.

RESULTS:

Pregnancies in which the average standardized cortisol during history of previous miscarriage(s) which occurred within 6th-27th week or/and history of preterm labor which occurred within 28th-36th weeks of gestation, demonstrated higher cortisol level (1.0201 ± 0.1855 ng/ml) compared to control group 0.9757 ± 0.2860 ng/ml ($P = 0.323$); statistical analysis showed no significant differences. Women of control group were more likely to be environmental tobacco smoke exposed (1.2714 ± 1.7639 ng/ml) than women with miscarriage and preterm births (0.9889 ± 0.5498 ng/ml).

CONCLUSION:

The results from this primarily study demonstrated no association between cotinine, cortisol, miscarriage and preterm births.

<http://www.springerlink.com/content/q783v1481660g531/>
<http://www.springerlink.com/content/q783v1481660g531/fulltext.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

Genotoxicity and Carcinogenicity

Waterpipe smoking: the role of humectants in the release of toxic carbonyls

[Archives of Toxicology](#), Online First, 17 June 2012

[Jens Schubert](#), [Volkmar Heinke](#), [Jana Bewersdorff](#), [Andreas Luch](#) and [Thomas G. Schulz](#)

Abstract

In recent years, the number of waterpipe smokers has increased substantially worldwide. Here, we present a study on the identification and quantification of seven carbonylic compounds including formaldehyde, acetaldehyde and acrolein in the mainstream smoke of the waterpipe. Smoking was conducted with a smoking machine, and carbonyls were scavenged from the smoke with two impingers containing an acidic solution of 2,4-dinitrophenylhydrazine. The derivatives were then analyzed by high-performance liquid chromatography–tandem mass spectrometry (LC–MS/MS). For instance, during one waterpipe smoking session, up to $111 \pm 12 \mu\text{g}$ formaldehyde could be detected. This value is about 5 times higher when compared to one 2R4F reference cigarette. We also found a distinct filter effect of the bowl water for all carbonyls investigated. Our data further demonstrate that increasing amounts of humectants in the unburned tobacco lowers the temperature in the waterpipe head during smoking, thereby resulting in decreasing levels of carbonyls in the smoke produced. Altogether, considerable amounts of toxic carbonyls are present in the waterpipe smoke, thus conferring a health risk to waterpipe smokers.

<http://www.springerlink.com/content/h5327m6647652127/>

Related *Arch Toxicol* Guest Editorial:

Waterpipe smoking: a new tobacco pandemic entailing severe health risks?

<http://www.springerlink.com/content/n881443181744741/>

Does Level of Tobacco Control Relate to Smoking Prevalence in Canada: A National Survey of Public Health Organizations

[Canadian Journal of Public Health](#)

[Vol 103, No 3 \(2012\), 195-201](#)

Nancy Hanusaik, Katerina Maximova, Natalie Kishchuk, Michèle Tremblay, Gilles Paradis, Jennifer O'Loughlin

Abstract

Objectives: To describe levels of tobacco control “effort” in public health organizations across provinces, and to test the hypothesis that “effort” is associated with the prevalence of daily smoking.

Methods: Data were drawn from a national survey (Oct 2004–Apr 2005) of all public health organizations engaged in chronic disease prevention in Canada in 2004. We investigated the association between “effort” and decline in smoking prevalence (CTUMS, 1999–2009) across provinces in an ecologic study design. “Effort” was assessed using two indicators: percent of public health organizations engaged in tobacco control, and mean level of involvement in engaged organizations.

Results: Of 216 organizations, 88% had undertaken tobacco control activities in the three years prior to data collection and were categorized as “engaged”. Level of involvement in tobacco control was highest in community-at-large settings; and it was generally higher for population- than for individual-level strategies. Nova Scotia reported higher levels of involvement than other provinces. There was substantial variability in “effort” across provinces. High-“effort” provinces (BC, NS, ON, QC) experienced, on average, improvement in the “change in smoking prevalence” score (1999 to 2009).

Conclusion: The findings provide evidence that provincial tobacco control “effort” relates to declines in smoking prevalence. Given that smoking remains a critical public health issue, the kinds of data reported herein are needed to inform the debate on how best to invest in tobacco control infrastructure to combat the most important public health threat of our times.

<http://journal.cpha.ca/index.php/cjph/article/view/2815>

Nrf2: Friend and Foe in Preventing Cigarette-Smoking-Dependent Lung Disease

[Chem Res Toxicol](#). 2012 Jun 11. [Epub ahead of print]

[Müller T](#), [Hengsternann A](#).

Abstract

Chronic exposure to cigarette smoke (CS) generally confronts cellular defense systems with one of the strongest known environmental challenges. In particular, the continuous exposure of tissues of the respiratory tract to abundant concentrations of radicals; volatile compounds of the gas phase, mainly reactive oxygen and nitrogen species; and CS condensate deposits trigger a pleiotropic adaptive response, generally aimed at restoring tissue homeostasis. As documented by numerous studies published over the past decade, a hallmark of this defense system is the activation of the transcription factor NF-E2-related factor 2 (Nrf2), which, consequent to its established role as master regulator of the cellular antioxidant response, has been shown to orchestrate the first-line of defense against cell- and tissue damaging components present in CS. The key to CS-dependent Nrf2 activation is assumed to be based on the long-known phenomenon of a general strong sulfhydryl (-SH) reactivity inherent to CS. This chemical trait is virtually predestined to be sensitized by the major route leading to Nrf2 activation, characterized by its dependence on the interaction of electrophiles with specific cysteine residues inherited by Nrf2's negative cytosolic regulator Keap1 (Kelch-like ECH-associated protein 1). In addition, other pathways involving CS-activated protein kinases implicated in the upstream regulation of Nrf2, such as protein kinase C, represent an alternative/complementary mechanism of CS-induced Nrf2 activation. Because of the outstanding function of the Nrf2-Keap1 axis in defending cells and tissues against oxidant and chemical stress, either directly or indirectly via cross-talking with other defense pathways, changes in the Nrf2 or Keap1 genotype have long been associated with disease development. In terms of the two major smoking-related diseases of the lung, i.e., emphysema and lung cancer, a fully functional Nrf2 genotype seems to be necessary, though not sufficient by itself, to protect the smoker from acquiring emphysema. Contrasting with this protective role, however, Nrf2 function may be potentially fatal in smoking-related lung tumorigenesis: as concluded from recent clinical investigations, lung tumor tissues harbor increased mutation or, alternatively, aberrant expression rates in either the KEAP1 or NRF2 gene, generally resulting in constitutive Nrf2 activation, suggesting that 'abuse' of Nrf2 function is an advantageous strategy of the (developing) tumor to protect itself against oxidative stress in general. Based on the fundamental significance of the Nrf2 pathway in smoking-dependent disease development, several attempts have been described for dietary and pharmacological intervention, the majority of which are intended to activate Nrf2 aiming at emphysema prevention. The intention of this review is to compile and discuss the various aspects of CS - Nrf2/Keap1 interaction in terms of mechanism, disease development, and chemoprevention.

Notes

The authors declare the following competing financial interest(s): Both authors are former employees of Philip Morris Research Laboratories GmbH, Cologne, an affiliate of Philip Morris International (PMI). Views, opinions, and positions expressed by the authors do not necessarily reflect the views, opinions or positions of PMI or its affiliates. T.M. holds stocks of PMI Inc.

<http://pubs.acs.org/doi/abs/10.1021/tx300145n>

Note: Tobacco industry-affiliated research.

Health, environment and working conditions in tobacco cultivation: a review of the literature

[Cien Saude Colet.](#) 2012 Jun;17(6):1587-600.

[Riquinho DL](#), [Hennington EA](#).

Abstract

This study presents a review of the literature published between 1979 and 2010 on health and working conditions in tobacco cultivation, with particular emphasis on the Brazilian context. A review of computerized databases (PubMed, Scopus, WilsonWeb and Bireme/PAHO Virtual Health Library - Public Health) was carried out using the following search terms: tobacco, agricultural worker health, agricultural worker disease, working conditions, unsafe working conditions, occupational risk, occupational disease, and labor force. Articles published in English, Spanish and Portuguese were analyzed. Thirty-seven articles were selected from 214 references that were initially identified. Thirty-four additional publications (reports, etc.) were also analyzed. Among the many effects described in the literature, especially noteworthy are "green tobacco sickness," respiratory disorders, musculoskeletal injuries, mental disorders, and a negative environmental impact. Very few studies have been carried out in Brazil.

http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232012000600022&lng=en&nrm=iso&tlng=en
<http://www.scielo.br/pdf/csc/v17n6/v17n6a22.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

Healthcare financing systems for increasing the use of tobacco dependence treatment

[Cochrane Database Syst Rev.](#) 2012 Jun 13;6:CD004305.

[Reda AA](#), [Kotz D](#), [Evers SM](#), [van Schayck CP](#).

Abstract**BACKGROUND:**

We hypothesized that provision of financial assistance for smokers trying to quit, or reimbursement of their care providers, could lead to an increased rate of successful quit attempts.

OBJECTIVES:

The primary objective of this review was to assess the impact of reducing the costs of providing or using smoking cessation treatment through healthcare financing interventions on abstinence from smoking. The secondary objectives were to examine the effects of different levels of financial support on the use and/or prescription of smoking cessation treatment and on the number of smokers making a quit attempt.

SEARCH METHODS:

We searched the Cochrane Tobacco Addiction Group Specialized Register in April 2012.

SELECTION CRITERIA:

We considered randomised controlled trials (RCTs), controlled trials and interrupted time series studies involving financial benefit interventions to smokers or their healthcare providers or both.

DATA COLLECTION AND ANALYSIS:

Two reviewers independently extracted data and assessed the quality of the included studies. Risk ratios (RR) were calculated for individual studies on an intention-to-treat basis and meta-analysis was performed using a random-effects model. We included economic evaluations when a study presented the costs and effects of two or more alternatives.

MAIN RESULTS:

We found eleven trials involving financial interventions directed at smokers and healthcare providers. Full financial interventions directed at smokers had a statistically significant favourable effect on abstinence at six months or greater when compared to no intervention (RR 2.45, 95% CI 1.17 to 5.12, $I^2 = 59%$, 4 studies). There was also a significant effect of full financial interventions when compared to no interventions on the number of participants making a quit attempt (RR 1.11, 95% CI 1.04 to 1.32, $I^2 = 15%$) and use of smoking cessation treatment (NRT: RR 1.83, 95% CI 1.55 to 2.15, $I^2 = 43%$; bupropion: RR 3.22, 95% CI 1.41 to 7.34, $I^2 = 71%$; behavioural therapy: RR 1.77, 95% CI 1.19 to 2.65). There was no evidence of an effect on smoking cessation when we pooled two trials of financial incentives directed at healthcare providers (RR 1.16, CI 0.98 to 1.37, $I^2 = 0%$). Comparisons of full coverage with partial coverage, partial coverage with no coverage, and partial coverage with another partial coverage intervention did not detect significant effects. Comparison of full coverage with partial or no coverage resulted in costs per additional quitter ranging from \$119 to \$6450.

AUTHORS' CONCLUSIONS:

Full financial interventions directed at smokers when compared to no financial interventions increase the proportion of smokers who attempt to quit, use smoking cessation treatments, and succeed in quitting. The absolute differences are small but the costs per additional quitter are low to moderate. We did not detect an effect on smoking cessation from financial incentives directed at healthcare providers. The methodological qualities of the included studies need to be taken into consideration when interpreting the results.

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004305.pub4/abstract>

Also:

Interventions for tobacco cessation in the dental setting

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD005084.pub3/abstract>

An overview of the China National Tobacco Corporation and State Tobacco Monopoly Administration

[Environ Health Prev Med.](#) 2012 Jun 14. [Epub ahead of print]

[He P](#), [Takeuchi T](#), [Yano E](#).

Abstract

OBJECTIVES:

China is facing a serious public health problem in active and passive smokers. Confronted with this, China has taken some measures to control tobacco. However, this information has not been surveyed at academic level. Our aim is to investigate information relating to tobacco controls in China.

METHODS:

To find information relating to tobacco control, we reviewed and analysed the China National Tobacco Corporation (CNTC) and State Tobacco Monopoly Administration (STMA) mainly by systematic examination of documents made available in the University of California, San Francisco Legacy Tobacco Documents Library and China Tobacco database.

RESULTS:

Eleven relevant documents met our research purpose, and 18 further relevant documents were found on the CNTC, STMA and Tobacco China database websites. As a result, 29 relevant articles were included in our analysis. We describe the CNTC and STMA's history, structure, and relation to the Chinese Government ministry and to other tobacco companies, and China's tobacco control in detail.

CONCLUSIONS:

The Chinese cigarette market is dominated by a state-owned monopoly, the STMA. Under the protection of the Law of the People's Republic of China on Tobacco Monopoly, the STMA controls all aspects of the tobacco industry. As far as the Chinese tobacco monopoly is concerned, although smoking harms people's health, restraining smoking threatens social stability and government income, which may be more serious problems for any government. China still has a long way to go in creating smoke-free environments.

<http://www.springerlink.com/content/40327n031888331p/>

Cigarette smoke-induced transgenerational alterations in genome stability in cord blood of human F1 offspring

FASEB Journal

Published online before print June 22, 2012, doi: 10.1096/fj.11-201194

[Julian Laubenthal](#), [Olga Zlobinskaya](#), [Krzysztof Poterlowicz](#), [Adolf Baumgartner](#), [Michal R. Gdula](#), [Eleni Fthenou](#), [Maria Keramarou](#), [Sarah J. Hepworth](#), [Jos C. S. Kleinjans](#), [Frederik-Jan van Schooten](#), [Gunnar Brunborg](#), [Roger W. Godschalk](#), [Thomas E. Schmid](#) and [Diana Anderson](#)

Abstract

The relevance of preconceptional and prenatal toxicant exposures for genomic stability in offspring is difficult to analyze in human populations, because gestational exposures usually cannot be separated from preconceptional exposures. To analyze the roles of exposures during gestation and conception on genomic stability in the offspring, stability was assessed *via* the Comet assay and highly sensitive, semiautomated confocal laser scans of γ H2AX foci in cord, maternal, and paternal blood as well as spermatozoa from 39 families in Crete, Greece, and the United Kingdom. With use of multivariate linear regression analysis with backward selection, preconceptional paternal smoking (% tail DNA: $P > 0.032$; γ H2AX foci: $P > 0.018$) and gestational maternal (% tail DNA: $P > 0.033$) smoking were found to statistically significantly predict DNA damage in the cord blood of F1 offspring. Maternal passive smoke exposure was not identified as a predictor of DNA damage in cord blood, indicating that the effect of paternal smoking may be transmitted *via* the spermatozoal genome. Taken together, these studies reveal a role for cigarette smoke in the induction of DNA alterations in human F1 offspring *via* exposures of the fetus *in utero* or the paternal germline. Moreover, the identification of transgenerational DNA alterations in the unexposed F1 offspring of smoking-exposed fathers supports the claim that cigarette smoke is a human germ cell mutagen.

<http://www.fasebj.org/content/early/2012/06/21/fj.11-201194.abstract>

Related coverage & PR:

Smoking fathers pass on damaged DNA to their children raising the risk of cancer

<http://www.dailymail.co.uk/health/article-2164116/Smoking-fathers-pass-damaged-DNA-children-raising-risk-cancer.html>

Men who smoke pass on damaged DNA to their unborn children

<http://www.brad.ac.uk/mediacentre/news-releases/Title-74536-en.php>

Offspring of Prenatal IV Nicotine Exposure Exhibit Increased Sensitivity to the Reinforcing Effects of Methamphetamine

[Front Pharmacol.](#) 2012;3:116. Epub 2012 Jun 18.

[Harrod SB](#), [Lacy RT](#), [Morgan AJ](#).

Abstract

Maternal smoking during pregnancy is associated with increased substance abuse in offspring. Preclinical research shows that *in utero* exposure to nicotine, the primary psychoactive compound in tobacco smoke, influences the neurodevelopment of reward systems and alters motivated behavior in offspring. The present study determined if prenatal nicotine (PN) exposure altered the sensitivity to the reinforcing and aversive effects of methamphetamine (METH) in offspring using a low dose, intravenous (IV) exposure method. Pregnant dams were administered nicotine (0.05 mg/kg/injection) or prenatal saline (PS) 3 \times /day on gestational days 8-21, and adult offspring were tested using METH self-administration (experiment 1) or METH-induced conditioned taste aversion (CTA; experiment 2) procedures. For METH self-administration, animals were trained to respond for IV METH (0.05 mg/kg/infusion; fixed-ratio 3) and they were tested on varying doses of the reinforcer (0.0005-1.0 mg/kg/infusion). For METH CTA, rats received three saccharin and METH pairings (0, 0.3, or 0.5 mg/kg, sc) followed by 14 daily extinction trials. Experiment 1: PN and PS animals exhibited inverted U-shaped dose-response curves; however, the PN animal's curve was shifted to the left, suggesting PN animals were more sensitive to the reinforcing effects of METH. Experiment 2: METH CTA was acquired in a dose-dependent manner and the factor of PN exposure was not related to the acquisition or extinction of METH-induced CTA.

There were no sex differences in either experiment. These results indicate that IV PN-exposed adult offspring exhibited increased sensitivity to IV METH. This suggests that PN exposure, via maternal smoking, will alter the reinforcing effects of METH during later stages of development, and furthermore, will influence substance use vulnerability in adult human offspring.

<http://www.frontiersin.org/Neuropharmacology/10.3389/fphar.2012.00116/abstract>

Note: Open Access. Full text PDF freely available from link immediately above.

Letter to the Editor

Responses to increasing cigarette prices in France: How did the tobacco lobby react?

Health Policy. 2012 Jun 18. [Epub ahead of print]

[Brailon A](#), [Dubois G](#).

Peretti-Watel and colleagues' survey of French smokers' reactions to increasing cigarette prices deserves comments [1].

Among 2000 respondents in 2008, 668 reported that they had been cigarette-smokers in 2003. Between 2003 and 2008, 110 (16%) out of these 668 had quit and 54% stated that the price of cigarettes had been one of the main reasons for quitting. The 110 quitters were replaced in part by 63 new smokers. These figures may underestimate the impact of price increases on smoking cessation and on reducing the level of initiation. Indeed, the 2003–2008 period was marked by two different parts, the increase in price was very short lived, the last one being in January 2004.

The first part began at the autumn of 2002 with an increase in taxes raising cigarettes prices by 12.5%. Then the first Cancer Plan (March 2003), imposed three more increases in a year (January 2003, October 2003 and January 2004) adding up to a 39% increase. This sharply decreased cigarette sales down to 54.9 billion of cigarettes in 2004 from 83.5 in 2001, after several years of plateau (83.0 in 1997) [2].

The relative price of cigarettes (i.e. the nominal price divided by the Consumer Price Index, year 1970 being 100 for reference) increased from 152 in 2001 to 221 in 2004 but then after leveled off, being 220 in 2008 as Jean Pierre Raffarin, Prime minister, closed out this first part by a moratorium on tobacco taxes which lasts nowadays [2]. The tobacco lobby must have been quite persuasive...

Durable efforts and comprehensive programs are mandatory. Protecting public health policies from the tobacco industry's influence is a major challenge. The lack of effective tobacco control policy costs tens of thousands of lives but is highly profitable to the tobacco industry.

<http://www.sciencedirect.com/science/article/pii/S0168851012001522>

Referenced *Health Pol* study:

Responses to increasing cigarette prices in France: How did persistent smokers react?

<http://www.sciencedirect.com/science/article/pii/S0168851012000814>

Economic impact of delays in listing decisions by provincial drug plans after a positive common drug review recommendation: the case of a smoking-cessation treatment

Healthc Q. 2012;15(2):52-60.

[Paradis PE](#), [Mishagina N](#), [Carter V](#), [Raymond V](#).

Abstract

Although varenicline (Champix), a smoking-cessation treatment, was recommended for listing by the Common Drug Review (CDR) in 2007, only one CDR-participating drug insurance plan listed it in March 2011 (Saskatchewan). This study estimated the economic impact of delays in the public listing of varenicline in Canada. Using statistical data and peer-reviewed research, social costs and benefits of reimbursing varenicline were estimated. Flows of attempted and

successful quitters were projected over a five-year period for three scenarios: immediate listing (2007), one- to four-year listing delays, and no reimbursement. Benefits of public reimbursement of varenicline would have been greatest in the first year (\$271 million) and then decreased due to the erosion in smoking prevalence. The current three-year listing delay prevented a projected 17,729 current smokers from quitting, translating into a projected additional lifetime social burden of \$700 million. The sizeable opportunity cost of delaying varenicline reimbursement implies broader economic issues for policy makers.

Acknowledgment

This research was funded by Pfizer Canada, Inc.

<http://www.longwoods.com/content/22912>

Cigarette Litter: Smokers' Attitudes and Behaviors

Int. J. Environ. Res. Public Health **2012**, *9*(6), 2189-2203; doi:10.3390/ijerph9062189

Jessica M. Rath, Rebecca A. Rubenstein, Laurel E. Curry, Sarah E. Shank and Julia C. Cartwright

Abstract

Cigarette butts are consistently the most collected items in litter clean-up efforts, which are a costly burden to local economies. In addition, tobacco waste may be detrimental to our natural environment. The tobacco industry has conducted or funded numerous studies on smokers' littering knowledge and behavior, however, non-industry sponsored research is rare. We sought to examine whether demographics and smokers' knowledge and beliefs toward cigarette waste as litter predicts littering behavior. Smokers aged 18 and older (n = 1,000) were interviewed about their knowledge and beliefs towards cigarette waste as litter. Respondents were members of the Research Now panel, an online panel of over three million respondents in the United States. Multivariate logistic regressions were conducted to determine factors significantly predictive of ever having littered cigarette butts or having littered cigarette butts within the past month (p -value < 0.05). The majority (74.1%) of smokers reported having littered cigarette butts at least once in their life, by disposing of them on the ground or throwing them out of a car window. Over half (55.7%) reported disposing of cigarette butts on the ground, in a sewer/gutter, or down a drain in the past month. Those who did not consider cigarette butts to be litter were over three and half times as likely to report having ever littered cigarette butts (OR = 3.68, 95%CI = 2.04, 6.66) and four times as likely to have littered cigarette butts in the past month (OR = 4.00, 95%CI = 2.53, 6.32). Males were significantly more likely to have littered cigarette butts in the past month compared to females (OR = 1.49, 95%CI = 1.14, 1.94). Holding the belief that cigarette butts are not litter was the only belief in this study that predicted ever or past-month littering of cigarette waste. Messages in anti-cigarette-litter campaigns should emphasize that cigarette butts are not just litter but are toxic waste and are harmful when disposed of improperly.

<http://www.mdpi.com/1660-4601/9/6/2189/>

Note: Open Access. Full text PDF freely available from link immediately above.

Tobacco, marijuana, and alcohol use in university students: a cluster analysis

J Am Coll Health. 2012 Jul;60(5):374-86.

[Primack BA](#), [Kim KH](#), [Shensa A](#), [Sidani JE](#), [Barnett TE](#), [Switzer GE](#).

Abstract

Objective: Segmentation of populations may facilitate development of targeted substance abuse prevention programs. The authors aimed to partition a national sample of university students according to profiles based on substance use. **Participants:** The authors used 2008-2009 data from the National College Health Assessment from the American College Health Association. The sample consisted of 111,245 individuals from 158 institutions. **Methods:** The sample was partitioned using cluster analysis according to current substance use behaviors. The association of cluster membership with individual and institutional characteristics was examined. **Results:** Cluster analysis yielded 6 distinct clusters. Three individual factors—gender, year in school, and fraternity/sorority membership—were the most strongly associated with cluster membership. **Conclusions:** In a large sample of university students, the authors were able to identify 6 distinct

patterns of substance abuse. It may be valuable to target specific populations of college-aged substance users based on individual factors. However, comprehensive intervention will require a multifaceted approach.

<http://www.tandfonline.com/doi/abs/10.1080/07448481.2012.663840>

Persistent cigarette smoking and other tobacco use after a tobacco-related cancer diagnosis

[J Cancer Surviv.](#) 2012 Jun 16. [Epub ahead of print]

[Underwood JM](#), [Townsend JS](#), [Tai E](#), [White A](#), [Davis SP](#), [Fairley TL](#).

Abstract

INTRODUCTION:

People who continue to smoke after a cancer diagnosis have an increased risk for recurrences or development of new malignancies. These risks may be even higher among tobacco-related cancer survivors (TRCS). We describe tobacco use behaviors among TRCS, other cancer survivors, and people without a history of cancer.

METHODS:

We used 2009 Behavioral Risk Factor Surveillance System data to describe demographic characteristics, smoking history, current smoking prevalence, and smokeless tobacco use among TRCS, other cancer survivors, and people without a history of cancer (cigarette smoking and smokeless tobacco use were calculated after adjusting for age, sex, race, and insurance status). Tobacco-related cancers were defined as lung/bronchial, pharyngeal, laryngeal, esophageal, stomach, pancreatic, kidney/renal, urinary bladder, cervical, and acute myeloid leukemia.

RESULTS:

A total of 20 % of all cancer survivors were TRCS. TRCS were primarily female (68 %) and white (78 %). Smoking prevalence was higher among TRCS (27 %) compared with other cancer survivors (16 %) and respondents without a history of cancer (18 %). Smokeless tobacco use was higher among respondents without a history of cancer (4 %) compared with TRCS (3 %) and other cancer survivors (3 %).

CONCLUSIONS:

The self-reported smoking prevalence among TRCS is higher than among other cancer survivors and people without a history of cancer. Targeted smoking prevention and cessation interventions are needed for cancer survivors, especially those diagnosed with a tobacco-related cancer.

IMPLICATIONS FOR CANCER SURVIVORS:

We recommend all cancer survivors be made aware of the health risks associated with smoking after a cancer diagnosis, and smoking cessation services be offered to those who currently smoke. We provide the first population-based report on demographic characteristics and tobacco use behaviors among self-reported tobacco-related cancer survivors.

<http://www.springerlink.com/content/543h441477655481/>

Increasing Lung Cancer Death Rates Among Young Women in Southern and Midwestern States

JCO

Published online before print **June 25, 2012**, doi: 10.1200/JCO.2012.42.6098

[Ahmedin Jemal](#), [Jiemin Ma](#), [Philip S. Rosenberg](#), [Rebecca Siegel](#) and [William F. Anderson](#)

Abstract

Purpose Previous studies reported that declines in age-specific lung cancer death rates among women in the United States abruptly slowed in women younger than age 50 years (ie, women born after the 1950s). However, in view of

substantial geographic differences in antitobacco measures and sociodemographic factors that affect smoking prevalence, it is unknown whether this change in the trend was similar across all states.

Methods We examined female age-specific lung cancer death rates (1973 through 2007) by year of death and birth in each state by using age-period-cohort models. Cohort relative risks adjusted for age and period effects were used to compare the lung cancer death rate for a given birth cohort to a referent birth cohort (ie, the 1933 cohort herein).

Results Age-specific lung cancer death rates declined continuously in white women in California, but the rates declined less quickly or even increased in the remaining states among women younger than age 50 years and women born after the 1950s, especially in several southern and midwestern states. For example, in some southern states (eg, Alabama), lung cancer death rates among women born in the 1960s were approximately double those of women born in the 1930s.

Conclusion The unfavorable lung cancer trend in white women born after circa 1950 in southern and midwestern states underscores the need for additional interventions to promote smoking cessation in these high-risk populations, which could lead to more favorable future mortality trends for lung cancer and other smoking-related diseases.

<http://jco.ascopubs.org/content/early/2012/06/20/JCO.2012.42.6098.abstract>

Related coverage:

Women's lung cancer deaths up in South and Midwest - Reuters

<http://uk.reuters.com/article/2012/06/26/us-women-lungcancer-death-idUKBRE85P1H520120626>

Concurrent Use of Cigarettes and Smokeless Tobacco among US Males and Females

[J Environ Public Health](#). 2012;2012:984561. Epub 2012 May 16.

[Mushtaq N](#), [Williams MB](#), [Beebe LA](#).

Abstract

Background. The current study describes concurrent use of cigarettes and smokeless tobacco (CiST) among males and females and evaluates factors associated with CiST use. **Methods.** Cross-sectional data were drawn from the 2010 Behavioral Risk Factor Surveillance System (BRFSS). Weighted stratified analyses were performed to find associations between CiST use and sociodemographic factors by gender. CiST users were compared to three different tobacco use groups: nonusers, exclusive smokers, and exclusive ST users. **Results.** Younger age and heavy alcohol consumption were consistently associated with increased odds of CiST use among both males and females, and regardless of comparison group. Among males, education was inversely related to CiST use, and these findings were consistent in all three comparisons. Among women, those unable to work or out of work were more likely to be CiST users, which was consistent across comparisons. American Indian females had higher odds of CiST use than White females when nontobacco users or smokers were the comparison group. **Conclusion.** This study identified sociodemographic characteristics associated with CiST use, and differences in these associations among women and men. Additionally, this study highlights the need to carefully consider what comparison groups should be used to examine factors associated with CiST use.

<http://www.hindawi.com/journals/jeph/2012/984561/>

Also:

Patterns of Tobacco Use and Dual Use in US Young Adults: The Missing Link between Youth Prevention and Adult Cessation

<http://www.hindawi.com/journals/jeph/2012/679134/>

Pilot Study Results from a Brief Intervention to Create Smoke-Free Homes

<http://www.hindawi.com/journals/jeph/2012/951426/>

Exploring the Next Frontier for Tobacco Control: Nondaily Smoking among New York City Adults

<http://www.hindawi.com/journals/jeph/2012/145861/>

Heterogeneity in Past Year Cigarette Smoking Quit Attempts among Latinos

<http://www.hindawi.com/journals/jeph/2012/378165/>

Note: Open Access. Full text PDF freely available from link immediately above.

Impact of tobacco control interventions on smoking initiation, cessation, and prevalence: a systematic review**[J Environ Public Health](#). 2012;2012:961724. Epub 2012 Jun 7.**[Wilson LM](#), [Avila Tang E](#), [Chander G](#), [Hutton HE](#), [Odelola OA](#), [Elf JL](#), [Heckman-Stoddard BM](#), [Bass EB](#), [Little EA](#), [Haberl EB](#), [Apelberg BJ](#).**Abstract**

Background. Policymakers need estimates of the impact of tobacco control (TC) policies to set priorities and targets for reducing tobacco use. We systematically reviewed the independent effects of TC policies on smoking behavior. Methods. We searched MEDLINE (through January 2012) and EMBASE and other databases through February 2009, looking for studies published after 1989 in any language that assessed the effects of each TC intervention on smoking prevalence, initiation, cessation, or price participation elasticity. Paired reviewers extracted data from studies that isolated the impact of a single TC intervention. Findings. We included 84 studies. The strength of evidence quantifying the independent effect on smoking prevalence was high for increasing tobacco prices and moderate for smoking bans in public places and antitobacco mass media campaigns. Limited direct evidence was available to quantify the effects of health warning labels and bans on advertising and sponsorship. Studies were too heterogeneous to pool effect estimates. Interpretations. We found evidence of an independent effect for several TC policies on smoking prevalence. However, we could not derive precise estimates of the effects across different settings because of variability in the characteristics of the intervention, level of policy enforcement, and underlying tobacco control environment.

<http://www.hindawi.com/journals/jeph/2012/961724/>**Also:**

Association of Indoor Smoke-Free Air Laws with Hospital Admissions for Acute Myocardial Infarction and Stroke in Three States

<http://www.hindawi.com/journals/jeph/2012/589018/>

Should Any Workplace Be Exempt from Smoke-Free Law: The Irish Experience

<http://www.hindawi.com/journals/jeph/2012/545483/>**Note:** Open Access. Full text PDF freely available from link immediately above.**Effects of 21 days of varenicline versus placebo on smoking behaviors and urges among non-treatment seeking smokers****[J Psychopharmacol](#). 2012 Jun 13. [Epub ahead of print]**[Ashare RL](#), [Tang KZ](#), [Mesaros AC](#), [Blair IA](#), [Leone FT](#), [Strasser AA](#).**Abstract**

Varenicline promotes smoking cessation and reduces urges to smoke. However, the mechanisms associated with these effects and their time course are not well characterized. One mechanism may be extinction, but the duration of the current dosing protocol may not be sufficient. We examined the effect of extended pre-treatment with varenicline on smoking behavior among 17 non-treatment seeking adult smokers. Using a within-subjects, double-blind, placebo-controlled crossover design, participants received standard dosing of varenicline for 21 days, followed by a 14-day washout period and 21 days of placebo; order counterbalanced. Cigarettes per day (CPD), smoking topography, smoking urges (QSU), and side effects were assessed every three days. Biomarkers (e.g. nicotine metabolites) were collected on days 1, 7, and 21. There was a significant drug by time interaction indicating a reduction in CPD during varenicline phase (between days 10-21), but no reduction during placebo. Varenicline also led to reductions in nicotine metabolites and urges to smoke. Among this sample of non-treatment seeking smokers, varenicline significantly reduced smoking behavior. Results have important treatment implications because changes in CPD and craving did not occur until after the typical one-week run-up period. This suggests that a longer duration of pre-treatment may be beneficial for some smokers.

<http://jop.sagepub.com/content/early/2012/06/13/0269881112449397.abstract>

Preterm newborns show slower repair of oxidative damage and paternal smoking associated DNA damage

[Mutagenesis](#). 2012 May 2. [Epub ahead of print]

[Vande Loock K](#), [Ciardelli R](#), [Decordier I](#), [Plas G](#), [Haumont D](#), [Kirsch-Volders M](#).

Abstract

Newborns have to cope with hypoxia during delivery and a sudden increase in oxygen at birth. Oxygen will partly be released as reactive oxygen species having the potential to cause damage to DNA and proteins. In utero, increase of most (non)-enzymatic antioxidants occurs during last weeks of gestation, making preterm neonates probably more sensitive to oxidative stress. Moreover, it has been hypothesized that oxidative stress might be the common etiological factor for certain neonatal diseases in preterm infants. The aim of this study was to assess background DNA damage; in vitro H₂O₂ induced oxidative DNA damage and repair capacity (residual DNA damage) in peripheral blood mononucleated cells from 25 preterm newborns and their mothers. In addition, demographic data were taken into account and repair capacity of preterm was compared with full-term newborns. Multivariate linear regression analysis revealed that preterm infants from smoking fathers have higher background DNA damage levels than those from non-smoking fathers, emphasizing the risk of paternal smoking behaviour for the progeny. Significantly higher residual DNA damage found after 15-min repair in preterm children compared to their mothers and higher residual DNA damage after 2 h compared to full-term newborns suggest a slower DNA repair capacity in preterm children. In comparison with preterm infants born by caesarean delivery, preterm infants born by vaginal delivery do repair more slowly the in vitro induced oxidative DNA damage. Final impact of passive smoking and of the slower DNA repair activity of preterm infants need to be confirmed in a larger study population combining transgenerational genetic and/or epigenetic effects, antioxidant levels, genotypes, repair enzyme efficiency/levels and infant morbidity.

<http://mutage.oxfordjournals.org/content/early/2012/05/02/mutage.ges022.abstract>

Correspondence**The Joint Commission's New Tobacco-Cessation Measures**

N Engl J Med 2012; 366:2428-2429

[June 21, 2012](#)

Jerod M. Loeb, Ann E. Watt

To the Editor:

We share the enthusiasm expressed by Fiore et al. (March 29 issue)¹ for the Joint Commission's new performance measures related to tobacco cessation. Some points in the article, however, require clarification. First, our original smoking-cessation measure required the provision of cessation counseling and advice (not merely advice). The current set of tobacco measures was developed because the original measure lacked the accuracy essential for accountability measures.² The article also stated that the goal of the Technical Advisory Panel was to ensure that new measures "mandated" the delivery of interventions. In fact, the panel was charged with developing a limited set of global standardized measures that address the assessment and treatment of tobacco dependence.

We strongly support and encourage adoption of the new measure for assessment and treatment of tobacco dependence, although we recognize that a hospital's decision to report on particular measures is often based on competing measurement demands, market forces, and government requirements. The decision about whether to report performance on such measures should not be interpreted as a reflection of the quality of the metrics themselves.

<http://www.nejm.org/doi/full/10.1056/NEJMc1205421>

<http://www.nejm.org/doi/pdf/10.1056/NEJMc1205421>

Related NEJM Perspective:

The Joint Commission's New Tobacco-Cessation Measures — Will Hospitals Do the Right Thing?

<http://www.nejm.org/doi/full/10.1056/NEJMp1115176>

<http://www.nejm.org/doi/pdf/10.1056/NEJMp1115176>

12.11.2012

Note: Open Access. Full text PDFs freely available from links immediately above.

Cigarette smoking and pain: Depressive symptoms mediate smoking-related pain symptoms

Pain. 2012 Jun 13. [Epub ahead of print]

[Goesling J](#), [Brummett CM](#), [Hassett AL](#).

Abstract

Numerous studies have shown an association between smoking and pain, with smokers reporting more pain and worse functioning. However, little is known about factors that impact this complex relationship. This study investigated the association between smoking, pain, and depressive symptoms. Participants were new patients seen at a multidisciplinary pain clinic. All patients were mailed an intake packet of validated questionnaires as part of an ongoing research and clinical care initiative. Of the 497 patients evaluated, 426 had valid smoking data. Among these patients, 32.6% (n=139) reported being current smokers, 31.7% (n=135) were classified as former smokers, and 35.7% (n=152) were never smokers. A multivariate analysis of covariance (smoking status, age, gender, education) revealed a main effect for pain severity (F=7.36, P<0.001), pain interference (F=4.03, P=0.001), and depressive symptoms (F=7.87, P<0.001). Current smokers demonstrated higher pain severity, pain interference, and depressive symptoms compared with former smokers and never smokers (P<0.01 for all analyses), while there were no differences between the former-smoker and never-smoker groups. However, the effect of smoking on pain severity (P=0.06) and pain interference (P=0.22) was no longer significant after controlling for depressive symptoms in a mediation model. Additionally, among former smokers, longer quit duration was associated with less pain severity. In conclusion, smoking rates were high and smoking was associated with a worse chronic pain phenotype. Importantly, depressive symptoms emerged as a critical mediating factor in helping to explain the relationship between smoking and pain.

<http://www.sciencedirect.com/science/article/pii/S0304395912003168>

Global Health Governance and the Commercial Sector: A Documentary Analysis of Tobacco Company Strategies to Influence the WHO Framework Convention on Tobacco Control

PLoS Med 9(6): e1001249. doi:10.1371/journal.pmed.1001249

Published: June 26, 2012

Heide Weishaar, Jeff Collin, Katherine Smith, Thilo Grüning, Sema Mandal, Anna Gilmore

Abstract

Background

In successfully negotiating the Framework Convention on Tobacco Control (FCTC), the World Health Organization (WHO) has led a significant innovation in global health governance, helping to transform international tobacco control. This article provides the first comprehensive review of the diverse campaign initiated by transnational tobacco corporations (TTCs) to try to undermine the proposed convention.

Methods and Findings

The article is primarily based on an analysis of internal tobacco industry documents made public through litigation, triangulated with data from official documentation relating to the FCTC process and websites of relevant organisations. It is also informed by a comprehensive review of previous studies concerning tobacco industry efforts to influence the FCTC. The findings demonstrate that the industry's strategic response to the proposed WHO convention was two-fold. First, arguments and frames were developed to challenge the FCTC, including: claiming there would be damaging economic consequences; depicting tobacco control as an agenda promoted by high-income countries; alleging the treaty conflicted with trade agreements, "good governance," and national sovereignty; questioning WHO's mandate; claiming the FCTC would set a precedent for issues beyond tobacco; and presenting corporate social responsibility (CSR) as an alternative. Second, multiple tactics were employed to promote and increase the impact of these arguments, including: directly targeting FCTC delegations and relevant political actors, enlisting diverse allies (e.g., mass media outlets and scientists),

and using stakeholder consultation to delay decisions and secure industry participation.

Conclusions

TTCs' efforts to undermine the FCTC were comprehensive, demonstrating the global application of tactics that TTCs have previously been found to have employed nationally and further included arguments against the FCTC as a key initiative in global health governance. Awareness of these strategies can help guard against industry efforts to disrupt the implementation of the FCTC and support the development of future, comparable initiatives in global health.

<http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001249>

Note: Open Access. Full text PDF freely available from link immediately above.

Related coverage:

Tobacco Industry's Tactics Against Anti-Tobacco Policies

<http://www.medicalnewstoday.com/articles/247164.php>

Tobacco smoking using midwakh is an emerging health problem - evidence from a large cross-sectional survey in the United Arab Emirates

PLoS One. 2012;7(6):e39189. Epub 2012 Jun 15.

[Al-Houqani M](#), [Ali R](#), [Hajat C](#).

Abstract

INTRODUCTION:

Accurate information about the prevalence and types of tobacco use is essential to deliver effective public health policy. We aimed to study the prevalence and modes of tobacco consumption in the United Arab Emirates (UAE), particularly focusing on the use of Midwakh (Arabic traditional pipe).

METHODS:

We studied 170,430 UAE nationals aged ≥ 18 years (44% males and 56% females) in the Weqaya population-based screening program in Abu Dhabi residents during the period April 2008-June 2010. Self-reported smoking status, type, quantity and duration of tobacco smoked were recorded. Descriptive statistics were used to describe the study findings; prevalence rates used the screened sample as the denominator.

RESULT:

The prevalence of smoking overall was 24.3% in males and 0.8% in females and highest in males aged 20-39. Mean age (SD) of smokers was 32.8 (11.1) years, 32.7 (11.1) in males and 35.7 (12.1) in females. Cigarette smoking was the commonest form of tobacco use (77.4% of smokers), followed by Midwakh (15.0%), shisha (waterpipe) (6.8%), and cigar (0.66%). The mean durations of smoking for cigarettes, Midwakh, shisha and cigars were 11.4, 9.3, 7.6 and 11.0 years, respectively.

CONCLUSIONS:

Smoking is most common among younger UAE national men. The use of Midwakh and the relatively young age of onset of Midwakh smokers is of particular concern as is the possibility of the habit spreading to other countries. Comprehensive tobacco control laws targeting the young and the use of Midwakh are needed.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0039189>

Also:

Smoking, Habitual Tea Drinking and Metabolic Syndrome in Elderly Men Living in Rural Community: The Tianliao Old People (TOP) Study 02

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0038874>

Glutamate and synaptic plasticity systems and smoking behavior: results from a genetic association study
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0038666>

Note: Open Access. Full text PDFs freely available from links immediately above.

Money as motivation to quit: A survey of a non-random Australian sample of socially disadvantaged smokers' views of the acceptability of cash incentives

[Prev Med.](#) 2012 Jun 10. [Epub ahead of print]

[Bonevski B](#), [Bryant J](#), [Lynagh M](#), [Paul C](#).

Abstract

OBJECTIVE:

This study aimed to a) assess acceptability of personal financial incentives to socially disadvantaged smokers and non-smokers; b) examine factors associated with acceptability; and c) examine preferred levels of incentive amounts.

METHODS:

A cross-sectional touch screen computer survey was conducted between February and October 2010 in New South Wales, Australia. Participants were clients experiencing financial or social hardship and receiving emergency welfare aid from a non-government social and community service organisation.

RESULTS:

Of 383 participants (69% response rate), 46% believed PFIs were an excellent/good idea, 47% believed personal financial incentives did more good than harm and 61% agreed they would motivate smokers to quit. High acceptability ratings were associated with participants being female, current smokers, living in low socioeconomic areas, experiencing smoking-induced deprivation, making a previous quit attempt and intending to quit in the next 6months. When asked what amount of incentive they felt would be acceptable, 23% selected amounts between \$50 and \$500AUD and 37% selected amounts over \$500AUD.

CONCLUSIONS:

Given high smoking prevalence among socially disadvantaged groups and consequent health disparities, it is imperative novel methods of encouraging smoking cessation are explored and tested. This survey found financial incentives may be an acceptable method. Further research to understand all possible positive and negative effects is warranted.

<http://www.sciencedirect.com/science/article/pii/S0091743512002472>

A global health perspective on the future of tobacco control

[Salud Publica Mex.](#) 2012 Jun;54(3):264-9.

[Samet JM](#).

Abstract

In this age of globalization, the outcome of tobacco control in one country is connected to events on the global stage. Tobacco control has become an increasingly consolidated global movement, catalyzed by the global tobacco control treaty, the World Health Organization's Framework Convention on Tobacco Control (FCTC) as well as the Bloomberg Initiative. This global collective effort is necessary in the face of an increasingly aggressive tobacco industry that has consolidated into a small number of very large multinational corporations, operating globally to expand their markets. Looming issues for tobacco control include the success with which the FCTC is implemented within individual nations, finding the proper role of harm reduction approaches, and using "lessons learned" from experience in the United States

with tobacco product regulation.

http://www.scielo.org/scielo.php?script=sci_arttext&pid=S0036-36342012000300008&lng=en&nrm=iso&tlng=en

<http://www.scielo.org/pdf/spm/v54n3/v54n3a08.pdf>

<http://bvs.insp.mx/rsp/ files/File/2012/vol%2054%20No%203/8Perspective.pdf>

Also:

Health warnings on tobacco products: international practices

http://www.scielo.org/scielo.php?script=sci_arttext&pid=S0036-36342012000300009&lng=en&nrm=iso&tlng=en

<http://www.scielo.org/pdf/spm/v54n3/v54n3a09.pdf>

The role of evidence-based media advocacy in the promotion of tobacco control policies

http://www.scielo.org/scielo.php?script=sci_arttext&pid=S0036-36342012000300010&lng=en&nrm=iso&tlng=en

<http://www.scielo.org/pdf/spm/v54n3/v54n3a10.pdf>

Illicit tobacco trade between the United States and Mexico

http://www.scielo.org/scielo.php?script=sci_arttext&pid=S0036-36342012000300011&lng=en&nrm=iso&tlng=en

<http://www.scielo.org/pdf/spm/v54n3/v54n3a11.pdf>

Economic evaluation of a 100% smoke-free law on the hospitality industry in an Argentinean province

http://www.scielo.org/scielo.php?script=sci_arttext&pid=S0036-36342012000300004&lng=en&nrm=iso&tlng=en

<http://www.scielo.org/pdf/spm/v54n3/v54n3a04.pdf>

Note: Open Access. Full text PDF freely available from link immediately above.

AAV-Directed Persistent Expression of a Gene Encoding Anti-Nicotine Antibody for Smoking Cessation

Sci Transl Med 27 June 2012:

Vol. 4, Issue 140, p. 140ra87

[Martin J. Hicks](#), [Jonathan B. Rosenberg](#), [Bishnu P. De](#), [Odelya E. Pagovich](#), [Colin N. Young](#), [Jian-ping Qiu](#), [Stephen M. Kaminsky](#), [Neil R. Hackett](#), [Stefan Worgall](#), [Kim D. Janda](#), [Robin L. Davisson](#) and [Ronald G. Crystal](#)

Abstract

Current strategies to help tobacco smokers quit have limited success as a result of the addictive properties of the nicotine in cigarette smoke. We hypothesized that a single administration of an adeno-associated virus (AAV) gene transfer vector expressing high levels of an anti-nicotine antibody would persistently prevent nicotine from reaching its receptors in the brain. To test this hypothesis, we constructed an AAVrh.10 vector that expressed a full-length, high-affinity, anti-nicotine antibody derived from the Fab fragment of the anti-nicotine monoclonal antibody NIC9D9 (AAVantiNic). In mice treated with this vector, blood concentrations of the anti-nicotine antibody were dose-dependent, and the antibody showed high specificity and affinity for nicotine. The antibody shielded the brain from systemically administered nicotine, reducing brain nicotine concentrations to 15% of those in naïve mice. The amount of nicotine sequestered in the serum of vector-treated mice was more than seven times greater than that in untreated mice, with 83% of serum nicotine bound to immunoglobulin G. Treatment with the AAVantiNic vector blocked nicotine-mediated alterations in arterial blood pressure, heart rate, and locomotor activity. In summary, a single administration of a gene transfer vector expressing a high-affinity anti-nicotine monoclonal antibody elicited persistent (18 weeks), high titers of an anti-nicotine antibody that obviated the physiologic effects of nicotine. If this degree of efficacy translates to humans, AAVantiNic could be an effective preventative therapy for nicotine addiction.

<http://stm.sciencemag.org/content/4/140/140ra87>

Related coverage & PR:

'Smoking vaccine' blocks nicotine in mice brains - BBC News

<http://www.bbc.co.uk/news/health-18608666>

New Vaccine for Nicotine Addiction - ScienceDaily

<http://www.sciencedaily.com/releases/2012/06/120627142419.htm>

Editorial

Meeting our ends by our means: protecting children from SHS in research

[Tonatiah Barrientos-Gutierrez](#), [David Gimeno](#), [George L Delclos](#), [James Thrasher](#), [Paula Knudson](#)

We are concerned by the recent publication of a randomised clinical trial in your journal, in which smoking parents were asked to continue smoking in the presence of their children for 6 months to evaluate if secondhand smoke (SHS) exposure increased the risk of bruxism.¹ It is surprising that after acknowledging that SHS is "...a serious public health threat" with a large impact on children's health, ranging from respiratory affections to cardiovascular damage, authors conducted a study in which: "The smoking members of the families in group 1 were asked not to smoke in the presence of the child for a period of 6 months, while those in group 2 were asked not to change their smoking habits."

What would have happened if a parent in group 2 had decided to quit smoking during follow-up? Would the investigators have encouraged him/her not to, or to wait until the end of the study? The active involvement of researchers in the decision to expose children to SHS contravenes the Helsinki declaration, since "...the well-being of the individual research subject must take precedence over all other interests".² Preventing family members from stopping smoking and actively seeking children to be exposed to a dangerous pollutant is reckless, as the benefits of knowing if SHS is a risk factor for bruxism cannot overcome the dangers of exposing children to SHS or the benefits of quitting. A reasonable approach to address the research question posed by the authors would have been to take an observational stance, developing the most effective intervention possible to eliminate SHS exposure at home for all children, closely monitoring bruxism and SHS exposure levels at home over time, and using each child as its own control. The methodological disadvantages associated with this approach would have been clearly balanced by its adherence to the Helsinki declaration.

As we move forward in eliminating SHS exposure, it is imperative that researchers, ethical committees, reviewers and scientific journals remain aware of the ethical implications of research, so our ends are met by our means. Failing to do so undermines participants' health and the global movement towards SHS elimination. Considering children's high vulnerability and inherent risks from SHS, we cannot think of a single research question that could justify actively seeking exposing children to SHS or preventing parents from stopping smoking to provide a healthier environment for themselves and their families. Although each study requires an individual assessment of the risk-benefit ratio, as a general rule, experimental studies involving exposure to SHS should be discouraged, preferring observational designs built upon the premise that all efforts will be made to support smoking cessation and eliminate SHS.

<http://tobaccocontrol.bmj.com.myaccess.library.utoronto.ca/content/21/4/383.1.extract>

Tob Control Editors' note, Authors' response, related Editorial & referenced study:

From the editors

<http://tobaccocontrol.bmj.com.myaccess.library.utoronto.ca/content/21/4/383.2.extract>

Association between exposure to SHS and sleep bruxism in children: further details on the trial

<http://tobaccocontrol.bmj.com.myaccess.library.utoronto.ca/content/21/4/384.extract>

The ethics of studying subjects in non-ideal circumstances

<http://tobaccocontrol.bmj.com.myaccess.library.utoronto.ca/content/21/4/385.extract>

Association between exposure to secondhand smoke and sleep bruxism in children: a randomised control study

<http://tobaccocontrol.bmj.com/content/early/2012/01/13/tobaccocontrol-2011-050217.abstract>

Also:

News analysis

<http://tobaccocontrol.bmj.com/content/21/4/387.extract>

<http://tobaccocontrol.bmj.com/content/21/4/387.full.pdf+html>

Note: Open Access. Full text PDF of News analysis freely available from link immediately above.

Awareness and impact of New York City's graphic point-of-sale tobacco health warning signs

Tob Control Published Online First: 23 June 2012

Micaela H Coady, Christina A Chan, Kari Auer, Shannon M Farley, Elizabeth A Kilgore, Susan M Kansagra

Abstract

Background To increase knowledge of smoking-related health risks and provide smoking cessation information at the point of sale, in 2009, New York City required the posting of graphic point-of-sale tobacco health warnings in tobacco retailers. This study is the first to evaluate the impact of such a policy in the USA.

Methods Cross-sectional street-intercept surveys conducted among adult current smokers and recent quitters before and after signage implementation assessed the awareness and impact of the signs. Approximately 10 street-intercept surveys were conducted at each of 50 tobacco retailers in New York City before and after policy implementation. A total of 1007 adults who were either current smokers or recent quitters were surveyed about the awareness and impact of tobacco health warning signs. Multivariate risk ratios (RR) were calculated to estimate awareness and impact of the signs.

Results Most participants (86%) were current smokers, and the sample was 28% African-American, 32% Hispanic/Latino and 27% non-Hispanic white. Awareness of tobacco health warning signs more than doubled after the policy implementation (adjusted RR =2.01, 95% CI 1.74 to 2.33). Signage posting was associated with an 11% increase in the extent to which signs made respondents think about quitting smoking (adjusted RR =1.11, 95% CI 1.01 to 1.22).

Conclusions A policy requiring tobacco retailers to display graphic health warning signs increased awareness of health risks of smoking and stimulated thoughts about quitting smoking. Additional research aimed at evaluating the effect of tobacco control measures in the retail environment is necessary to provide further rationale for implementing these changes and countering legal challenges from the tobacco industry.

<http://tobaccocontrol.bmj.com/content/early/2012/06/22/tobaccocontrol-2011-050261.abstract>

Also:

Carbon monoxide levels in water pipe smokers in rural Laos PDR

<http://tobaccocontrol.bmj.com/content/early/2012/06/22/tobaccocontrol-2012-050431.extract>

'The times are changing': New Zealand smokers' perceptions of the tobacco endgame

Tob Control Published Online First: 16 June 2012

Ninya Maubach, Janet A Hoek, Richard Edwards, Heather Gifford, Stephanie Erick, Rhiannon Newcombe

Abstract

Background The New Zealand government's goal of achieving a smoke-free society by 2025 reflects growing interest in 'endgame' solutions to tobacco smoking. However, tobacco companies have framed 'endgame' strategies as contrary to individual freedoms and 'choice'; these claims heighten politicians' sensitivity to 'nanny state' allegations and may undermine tobacco control policies. Public support for stronger policies could strengthen political will; however, little is known about how smokers perceive endgame scenarios or the factors underlying their support or opposition to these.

Methods The authors conducted 47 in-depth interviews with four priority groups: Māori, Pacific, young adults and pregnant women; all were smokers or very recent quitters. The authors used thematic analysis to interpret the transcripts.

Results Most participants strongly supported the 2025 smoke-free goal, recognised the broader social good that would result and accepted the personal inconvenience of quitting. Yet they wanted to retain control over when and how they would quit and asserted their 'freedom' to smoke. Participants identified interventions that would extend current policy and maintain the autonomy they valued; the authors classified these into four themes: restricting supply, diminishing visibility, decreasing availability and affordability, and increasing quit support.

Conclusions Politicians may have a stronger mandate to implement endgame policies than they appreciate. Participants' use of industry arguments when asserting their freedom to 'choose' to smoke and quit suggests a need for denormalisation strategies that challenge industry propaganda, demonstrate how endgame measures would empower smokers and re-iterate the community benefits a smoke-free society will deliver.

<http://tobaccocontrol.bmj.com/content/early/2012/06/15/tobaccocontrol-2011-050398.abstract>

Also:

The Gold Standard Programme: smoking cessation interventions for disadvantaged smokers are effective in a real-life setting

<http://tobaccocontrol.bmj.com/content/early/2012/06/15/tobaccocontrol-2011-050194.abstract>

<http://tobaccocontrol.bmj.com/content/early/2012/06/15/tobaccocontrol-2011-050194.full.pdf+html>

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STAN Bulletin is supported by
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