Library Watch on nicotine

www.projectcork.org Winter 2010

"Everywhere the Soldier Will Be": Wartime tobacco promotion in the US military.
Smith EA; Malone RE. *American Journal of Public Health* 99(9): 1595-1602, 2009. (99 refs.)
Deployment of young Americans in military engagements places them at increased risk for not only war hazards but also tobacco addiction and disease. Tobacco use diminishes troop health and readiness, and increases medical and training costs. Military tobacco control efforts began in 1986, yet tobacco use remains high. To determine whether and how the tobacco industry targets military personnel in wartime, we analyzed internal industry documents about the Gulf War (1990-1991) and constructed a historical case study. During this conflict, tobacco companies targeted troops with free cigarettes, direct advertising, branded items, ways to communicate with family, and "welcome home" events. Military authorities sometimes restricted this activity, but frequently enabled it; tobacco companies were regarded as benefactors. Considering tobacco use a benefit undermines military health priorities. Stronger policy is needed to reframe tobacco use as incompatible with military ideals.

Contact me soon!!! Confidential, risk-free opportunity! (editorial).
Malone RE; Smith EA. *Tobacco Control* 18(4): 249-249, 2009. (2 refs.)
We recently both independently received an email that offered us a chance to do good and earn money for next to no work. The proposition was somewhat unethical, but the sender promised us complete confidentiality. The email concluded by asking us for an expression of interest to obtain further information about the deal. Probably most of you have received emails such as this from various "widows", "orphans", "veterans" and crooked "bank employees" from around the world. This one was different. It was from a major university research institute, asking us to consult on a project funded by Philip Morris. The project in question was an evaluation of Philip Morris's "Quit Assist" website, and each of us (and quite a large number of other people with whom we have subsequently spoken) was asked to serve as a paid "consultant". The message noted that "some scholars have decided not to take money from tobacco companies". But the writer seemed to assume that even if we were willing to take the money, we would consider it shameful; the message quickly pointed out that the compensation would be nicely laundered by the university that had received the grant from Philip Morris. Thus, no embarrassing tobacco company checks with our names on them would show up in industry document repositories.

Policy Statement -- Tobacco Use: A pediatric disease. (review).
Binns HJ; Forman JA; Karr CJ; Paulson JA; Osterhoudt KC; Roberts JR et al. *Pediatrics* 124(5): 1474-1487, 2009. (100 refs.)
Tobacco use and secondhand tobacco-smoke (SHS) exposure are major national and international health concerns. Pediatricians and other clinicians who care for children are uniquely positioned to assist patients and families with tobacco-use prevention and treatment. Understanding the nature and extent of tobacco use and SHS exposure is an essential first step toward the goal of eliminating tobacco use and its consequences in the pediatric population. The next steps include counseling patients and family members to avoid SHS exposures or cease tobacco use; advocacy for policies that protect children from SHS exposure; and elimination of tobacco use in the media, public places, and homes. Three overarching principles of this policy can be identified: (1) there is no safe way to use tobacco; (2) there is no safe level or duration of exposure to SHS; and (3) the financial and political power of individuals, organizations, and government should be used to support tobacco control. Pediatricians are advised not to smoke or use tobacco; to make their homes, cars, and workplaces tobacco free; to consider tobacco control when making personal and professional decisions; to support and advocate for comprehensive tobacco control; and to advise parents and patients not to start using tobacco or to quit if they are already using tobacco. Prohibiting both tobacco advertising and the use of tobacco products in the media is recommended. Recommendations for eliminating SHS exposure and reducing tobacco use include attaining universal (1)

smoke-free home, car, school, work, and play environments, both inside and outside, (2) treatment of tobacco use and dependence through employer, insurance, state, and federal supports, (3) implementation and enforcement of evidence-based tobacco-control measures in local, state, national, and international jurisdictions, and (4) financial and systems support for training in and research of effective ways to prevent and treat tobacco use and SHS exposure. Pediatricians, their staff and colleagues, and the American Academy of Pediatrics have key responsibilities in tobacco control to promote the health of children, adolescents, and young adults.

Culturally specific interventions for African American smokers: An efficacy experiment.

Webb MS. *Journal of the National Medical Association* 101(9): 927-935, 2009. (48 refs.)

This pilot study sought to dismantle the efficacy of culturally specific print materials for smoking cessation. Two-hundred sixty-one African American smokers were randomized into I of 2 conditions: standard booklet or culturally specific booklet. The content and length of the interventions were identical yet varied in their degree of cultural specificity. Three-month follow-up assessments were completed by 70% (N = 183) of participants. Dependent variables included content evaluation, readiness to quit smoking, and actual behavior change. Evidence suggested that the culturally specific material was more effective at capturing attention, providing encouragement and gaining interest compared to standard materials; however, greater credibility was found for standard materials. In addition, greater readiness to quit and more 24-hour quit attempts were found in the standard condition. No differences were found in abstinence rates. In conclusion, culturally specific interventions may be preferred over standard approaches among African American smokers. Culturally specific approaches, however, may not result in greater behavior change. Implications for written interventions and cultural specificity ore discussed.

Early life insult from cigarette smoke may be predictive of chronic diseases later in life. (review).

Doherty SP; Grabowski J; Hoffman C; Ng SP; Zelikoff JT. *Biomarkers* 14(Supplement 1): 97-101, 2009. (32 refs.)

Evidence is rapidly accumulating that links cigarette smoke (CS) exposure in utero with the development of a variety of disease pathologies in the older offspring including, type 2 diabetes, obesity, certain childhood cancers and respiratory disorders. The role that the fetal environment plays in these late-onset outcomes and the underlying cellular/molecular mechanisms by which these CS-induced effects may occur are currently unknown. Although we are becoming more aware of the fact that prenatal insult can underlie childhood/adult diseases, critical knowledge gaps still exist including gene-environment interactions, and how a CS-induced imbalance in immune dynamics (i.e. T(H)1/T(H)2) might affect asthma development and/or exacerbation later in life. In this mini-review we introduce the concept of sexual dimorphism in CS-induced late-onset disease outcomes, as well as explore the mechanisms by which CS exposure in utero can lead to cardiovascular, cancer and respiratory abnormalities in the exposed offspring. By addressing such questions using animal models, appropriate intervention strategies can be developed that will help to protect children's health and their long-term quality of life.

Disparities in access to over-the-counter nicotine replacement products in New York City pharmacies.

Bernstein SL; Cabral L; Maantay J; Peprah D; Lounsbury D; Maroko A et al. *American Journal of Public Health* 99(9): 1699-1704, 2009. (25 refs.)

Objectives. We surveyed the availability of tobacco products and nonprescription nicotine replacement therapy (NRT) in pharmacies in New York City, stratified by the race, ethnicity, and socioeconomic status (SES) of the surrounding neighborhoods to determine whether disparities in availability existed. Methods. Surveyors visited a random sample of retail pharmacies to record the availability of tobacco products and nonprescription NRT. We used census data and geographic information systems analysis to determine the SES of each neighborhood. We used logistic modeling to explore relations between SES and the availability of NRT and tobacco products. Results. Of 646 pharmacies sampled, 90.8% sold NRT and 46.9% sold cigarettes. NRT and cigarettes were slightly more available in pharmacies in neighborhoods with a higher SES. NRT was more expensive in poorer neighborhoods. Conclusions. Small disparities existed in access to nonprescription NRT and cigarettes. The model did not adequately account for cigarette access, because of availability from other retail outlets. These results may explain some of the excess prevalence of cigarette use in low-SES areas.

End-of-treatment smoking cessation among African American female participants in the Breathe Free (TM) for Women Smoking Cessation Program: Results of a pilot study.

Fernander A; Bush H; Goldsmith-Mason S; White P; Obi B. *Journal of The National Medical Association* 101(10): 1034-1040, 2009. (28 refs.)

Objective: Quitting smoking is particularly imperative for African American women due to their disproportionate rates of smoking-related morbidity and mortality. However, very few smoking cessation interventions have demonstrated successful quit rates for African American women. This study sought to examine the Breathe Free (TM) for Women (BFFW) smoking cessation lifestyle program among African American female smokers. The primary objective of the pilot project was to examine end-of-treatment quit rates, and the secondary objective sought to obtain feedback from African American female participants on the acceptability of the intervention in this population. Methods: A total of 42 African American females were recruited to participate in 1 of 6 intervention cohorts. Each intervention cohort participated in 9 group sessions presented over a period of 4 weeks. Participants complete on investigator developed survey assessing current smoking status as well as impressions of each intervention session. Results: An end-of-treatment quit rate of 19% was achieved with on average study retention rote of 70%. In addition, participants' feedback indicated that the BFFW intervention offers a highly promising model for enhanced tailoring by incorporating socioculturally relevant methods, materials, and content. Conclusions: Future research must address the critical public health need for socioculturally relevant adaptations of existing and promising smoking cessation programs for African American women.

How confident should we be that smoking cessation treatments work? (review).

Hughes JR. *Addiction* 104(10): 1637-1640, 2009. (44 refs.)

Aim: To determine (i) the concordance among recent meta-analyses about which treatments for smoking cessation are efficacious; (ii) the similarity of odds ratios (ORs) across meta-analyses; and (iii) among the validated treatments, the proportion of studies that found higher quit rates. Methods: Computerized literature search for meta-analyses during the last 5 years in PubMed and PsychInfo. Data were extracted from summary tables of overall effect of validated treatments. Results: Fourteen meta-analyses agreed 100% on the presence/absence of efficacy of 17 proven treatments. The ORs differed by < 0.5 in 72/76 of the comparisons of meta-analyses. Among 37 comparisons in 33 comparisons, > 85% of the studies reported numerical superiority for the active treatment. Conclusions: The efficacy of treatments for smoking cessation are extremely reliable. This argues for inclusion of treatment as an essential feature of tobacco control and clinical practice and argues for reimbursement of smoking cessation treatments on a par with other medical and behavioral disorders.

How does exposure to cigarette advertising contribute to smoking in adolescents? The role of the developing self-concept and identification with advertising models.

Shadel WG; Tharp-Taylor S; Fryer CS. *Addictive Behaviors* 34(11): 932-937, 2009. (37 refs.)

Increased exposure to cigarette advertisements is associated with increases in adolescent smoking but the reasons for this association are not well established. This study evaluated whether self-concept development (operationalized as level of self-conflict) and identifying with the models used in cigarette print advertising contributed to smoking intentions among adolescents. Ninety-five adolescents (ages 11-17) participated in this two session study. In session 1, they rated the extent to which they identified with the models used in 10 current cigarette print ads (the models were isolated digitally from the cigarette advertisements) and their level of self-conflict was assessed. In session 2, participants viewed each of the 10 cigarette advertisements from which the models were drawn and rated their intentions to smoke following exposure to each ad. Model identification was associated with similar levels of post ad exposure smoking intentions for both younger and older adolescents when they also exhibited no self-conflict. A contrasting set of findings emerged for younger and older adolescents when they exhibited high levels of self-conflict: Young adolescents who strongly identified with the models used in cigarette advertisements had higher post ad exposure smoking intentions compared to younger adolescents who weakly identified with the models used in the advertisements; in contrast, older adolescents who weakly identified with the models used in cigarette advertisements had stronger post ad exposure smoking intentions compared to older adolescents who strongly identified with the models used in the advertisements. These results point to the importance of examining developmentally-relevant moderators for the effects of

cigarette advertising exposure.

Influence of PTSD symptom clusters on smoking status among help-seeking Iraq and Afghanistan veterans.

Cook J; Jakupcak M; Rosenheck R; Fontana A; McFall M. *Nicotine & Tobacco Research* 11(10): 1189-1195, 2009. (41 refs.)

Despite the strong association between smoking and posttraumatic stress disorder (PTSD), mechanisms influencing smoking in this population remain unclear. Previous smoking research has largely examined PTSD as a homogenous syndrome despite the fact that PTSD is composed of four distinct symptom clusters (i.e., reexperiencing, effortful avoidance, emotional numbing, and hyperarousal). Examination of the relationship between smoking and PTSD symptom clusters may increase understanding of mechanisms influencing comorbidity between smoking and PTSD. The goals of the present study were to (a) examine the influence of overall PTSD symptom severity on likelihood of smoking and smoking heaviness and (b) examine the influence of each PTSD symptom cluster on smoking. Participants (N = 439) were Operation Iraqi Freedom/Operation Enduring Freedom combat veterans referred to VA mental health services. Multinomial logistic regression was chosen to accommodate a three-level outcome, in which the likelihood of being a nonsmoker was compared with (a) light smoking (1-9 cigarettes/day), (b) moderate smoking (10-19 cigarettes/day), and (c) heavy smoking (>= 20 cigarettes/day). Results showed that veterans with higher levels of overall PTSD symptomatology were more likely to endorse heavy smoking (Wald = 4.56, p = .03, odds ratio [OR] = 1.65). Veterans endorsing high levels of emotional numbing were also more likely to endorse heavy smoking (Wald = 6.49, p = .01, OR = 1.81); all other PTSD symptom clusters were unrelated to smoking. The association between emotional numbing and heavy daily smoking suggests that veterans with PTSD may smoke to overcome emotional blunting following trauma exposure.

Online support for smoking cessation: A systematic review of the literature. (review).

Shahab L; McEwen A. *Addiction* 104(11): 1792-1804, 2009. (65 refs.)

Aim: To examine the efficacy and acceptability of online, interactive interventions for smoking cessation and to identify treatment effect moderators and mediators. Methods: A systematic review and meta-analysis of the literature (1990-2008) was conducted, finding 11 relevant randomized controlled trials. Data were extracted and risk ratios and risk differences estimated with a random effects model. Results: There was no evidence of publication bias. Included trials were of variable methodological quality. Web-based, tailored, interactive smoking cessation interventions were effective compared with untailored booklet or e-mail interventions [rate ratio (RR) 1.8; 95% confidence interval (CI) 1.4-2.3] increasing 6-month abstinence by 17% (95% CI 12-21%). No overall effect of interactive compared with static web-based interventions was detected but there was significant heterogeneity, with one study obtaining a clear effect and another failing to find one. Few moderating or mediating factors were evaluated in studies and those that were had little effect. Pooled results suggest that only interventions aimed at smokers motivated to quit were effective (RR 1.3, 95% CI 1.0-1.7). Fully automated interventions increased smoking cessation rates (RR 1.4, 95% CI 1.0-2.0), but evidence was less clear-cut for non-automated interventions. Overall, the web-based interventions evaluated were considered to be acceptable and user satisfaction was generally high. Conclusion: Interactive, web-based interventions for smoking cessation can be effective in aiding cessation. More research is needed to evaluate the relative efficacy of interactive web-based interventions compared with static websites.

Genetic linkage findings for DSM-IV nicotine withdrawal in two populations.

Pergadia ML; Agrawal A; Loukola A; Montgomery GW; Broms U; Saccone SF et al. *American Journal of Medical Genetics. Part B-Neuropsychiatric Genetics* 105B(7): 950-959, 2009. (70 refs.)

Nicotine withdrawal (NW) is both an important contributor to difficulty quitting cigarettes and because of mood-related withdrawal symptoms a problem of particular relevance to psychiatry. Twin-studies suggest that genetic factors influence NW (heritability = 45%). Only one previous linkage study has published findings on NW [Swan et al. (2006); Am J Medical Genet Part B 141 B:354-360; LOD = 2.7; Chr. 6 at 159 cM]. As part of an international consortium, genome-wide scans (using over 360 autosomial microsatellite markers) and telephone diagnostic interviews were conducted on 289 Australian (AUS) and 161 Finnish (FIN, combined (COMB) N = 450 families) families ascertained from twin registries through index-cases with a lifetime history of cigarette smoking. The statistical approach used an affected-sib-pair design (at least two adult full siblings reported a history of DSM-IV NW) and

conducted the linkage analyses using MERLIN. Linkage signals with LOD scores > 1.5 were found on two chromosomes: 6 (FIN: LOD = 1.93 at 75 cM) and I I at two different locations (FIN: LOD = 3.55 at 17 cM, and AUS: LOD = 1.68 with a COMB: LOD = 2.30 at 123 cM). The multipoint LOD score of 3.55 on chromosome 11p15 in FIN met genomewide significance (P = 0.013 with 1,000 simulations). At least four strong candidate genes lie within or near this peak on chromosome 11: DRD4, TPH, TH, and CHRNA10. Other studies have reported that chromosome I I may harbor genes associated with various aspects of smoking behavior. This study adds to that literature by highlighting evidence for NW.

Smokeless tobacco: The epidemiology and politics of harm. (review).

Phillips CV; Heavner KK. *Biomarkers* 14(Supplement 1): 79-84, 2009. (15 refs.)

The health burden from tobacco smoking results almost entirely from inhalation of the components of smoke, although this is not widely known. The primary benefit of smoking is nicotine delivery, but nicotine can be obtained without combustion. Thus there is potential for tobacco harm reduction (THR), the substitution of lower-risk nicotine products for smoking. Epidemiological evidence suggests that smokeless tobacco causes about one one-hundredth the health risk of smoking. Despite the practice of harm reduction being widely accepted in public health, however, THR has faced fierce opposition from antitobacco activists. These activists have effectively misled the public about what aspect of smoking cigarettes causes the harm, convincing them that nicotine and tobacco themselves are harmful, ignoring the smoke. In the interests of promoting public health and rescuing science from politics, experts on inhalation hazards and health could play an important role in educating the public and policy makers about THR.

Smoking history and the incidence of age-related macular degeneration: Results from the Muenster Aging and Retina Study (MARS) cohort and systematic review and meta-analysis of observational longitudinal studies.

Neuner B; Komm A; Wellmann J; Dietzel M; Pauleikhoff D; Walter J et al. *Addictive Behaviors* 34(11): 938-947, 2009. (86 refs.)

To compare the association of smoking with age-related macular degeneration (AMD) in the Muenster Aging and Retina Study (MARS) cohort with current evidence. Adjusted risk ratios for incident AMD in MARS were compared with findings of a systematic review and meta-analysis of observational prospective studies. 9.6% of MARS participants progressed to AMD over a median of 30.9 months. In MARS the adjusted risk ratio in current versus never smokers was 3.25 (95% confidence interval [1.50-7.06]), and 1.28 [0.70-2.33] in former smokers versus never smokers. The meta-analysis of previous studies showed a pooled adjusted risk ratio of 2.51 [1.09-5.76] in current versus never smokers. Inclusion of the MARS findings removed between-study heterogeneity and accentuated the pooled adjusted risk ratio for current smokers to 2.75 [1.52-4.98]. Specific analyses in MARS revealed a protective effect for time since smoking cessation in former smokers with an adjusted risk ratio=0.50 [0.29-0.89] per log(year). Current smoking nearly triples AMD incidence, while smoking cessation lowers AMD incidence in a non-linear fashion even in the elderly.

The effect of smoke-free homes on adult smoking behavior: A review. (review).

Mills AL; Messer K; Gilpin EA; Pierce JP. *Nicotine & Tobacco Research* 11(10): 1131-1141, 2009. (59 refs.)

Smoke-free homes are known to reduce exposure to harmful secondhand smoke. Recent studies suggest that they may also positively affect smoking behavior among smokers themselves. We review the literature on the effect of smoke-free homes on adult smoking behavior. The literature search included database (PubMed) and manual searches of related articles and reference lists for English-language studies published from 1 January 1990 to 16 November 2008. We identified 16 cross-sectional and 7 longitudinal studies of the population-level association of smoke-free homes with adult smoking behavior. Additional studies provided population estimates of trends in and correlates of smoke-free homes. Prevalence of smoke-free homes varies but has been increasing over time in the countries studied and was greater among smokers who were younger, of higher income or educational attainment, smoked fewer cigarettes per day, or lived with a nonsmoking adult or child. Both longitudinal and cross-sectional studies showed that smokers who had or who newly implemented a smoke-free home were significantly more likely to make a quit attempt and to be abstinent, after controlling for confounding factors. In longitudinal studies, those who continued to smoke had a modest, but significant, decrease in cigarette consumption at follow-up. There is strong and consistent population-level evidence that a smoke-free home is associated with increased smoking cessation and decreased cigarette consumption in adult smokers. As they not only reduce exposure to

secondhand smoke but also increase cessation rates, promotion of smoke-free homes should be a key element in tobacco control programs.

The effects of local workplace smoking laws on smoking restrictions and exposure to smoke at work.

Carpenter CS. *Journal of Human Resources* 44(4): 1023-1046, 2009. (29 refs.)

We provide new evidence on the effects of workplace smoking restrictions by studying more than 100 local smoking ordinances in Ontario, Canada from 1997-2004. We advance the literature by examining local (as opposed to state or provincial) laws in a quasi-experimental framework and by explicitly testing for effects on worksite compliance and exposure to environmental tobacco smoke (ETS). We show that the local laws significantly increased workplace smoking restrictions for blue collar workers, and among this group the laws (and, by implication, workplace smoking bans) reduced ETS exposure by 28-33 percent. We find smaller and insignificant estimates for other workers.

Women and tobacco control policies: Social-structural and psychosocial contributions to vulnerability to tobacco use and exposure. (review).

Greaves L; Hemsing N. *Drug and Alcohol Dependence* 104(Supplement 1): S121-S130, 2009. (88 refs.)

This article explores the psychosocial and social-structural vulnerability in relation to women's tobacco use, smoke exposure and responses to policy, and examines these issues in the context of women's lives and roles, describing forward looking strategies that could improve research and equity in outcomes for women. Various literatures on smoking among women and girls, and how women and sub-populations of women respond to tobacco control policies are reviewed. Specific sub-populations exhibiting more tobacco use and exposure are described, such as Young pregnant and mothering women and low-income women. Emerging evidence also reveals links between smoking and experiences such as childhood sexual abuse, interpersonal violence, post-traumatic stress disorder, mental health issues and alcohol and drug dependence. Varied sub-populations of women respond in different ways to price and taxation, sales restrictions and location restrictions. However, tobacco control policies have, to date, been fashioned as broad instruments, not taking into account social context, trauma backgrounds, gendered roles such as mothering, unequal power relations affecting women in relationships and workplaces, and differences in access to resources and social support. When these issues are considered, the implications for tobacco policy development include: widening the policy purview, accounting for uneven and differential responses to policies, committing to an ethical framework, extending sex, gender and diversity based analyses, and improving research methods and approaches.

An overview of principles of effective treatment of substance use disorders and their potential application to pregnant cigarette smokers.

Heil SH; Scott TL; Higgins ST. *Drug and Alcohol Dependence* 104(Supplement 1): S106-S114, 2009. (92 refs.)

Cigarette smoking remains a leading preventable cause of poor pregnancy outcomes and infant morbidity and mortality. Despite three decades of research encompassing more than 60 trials and 20,000 pregnant women, cessation rates produced by existing interventions are often low (<20%), especially among socioeconomically disadvantaged women. This has led to a call for the development and testing of novel interventions. One strategy for identifying novel interventions for pregnant smokers is to examine efficacious interventions for other types of substance use disorders (SUDs). Pregnant smokers share many sociodemographic similarities with other sub-populations of individuals with SUDs, suggesting that interventions efficacious with the latter may also benefit the former. The National Institute on Drug Abuse's guide, "Principles of Drug Addiction Treatment: A Research-based Guide", presents empirically validated principles of effective treatments for other SUDs. The present report enumerates these principles, briefly describes some of the empirical evidence supporting them, and explores their potential application to the treatment of smoking during pregnancy. Overall, the results of this exercise suggest much promise for enhancing treatment outcomes for pregnant smokers by borrowing from and extending what has been learned with other populations with SUDs.