

Burning Issues

Tobacco's Hottest Topics

Tobacco-Related Disease Research Program Newsletter

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PHILIP MORRIS INTERNATIONAL Astride the World

[Editorial]

By Phillip Gardiner, Dr.P.H.

In one bold stroke, Altria Group Inc. announced that it will spin off Philip Morris International (PMI), its fast growing child and in doing so position itself for the global tobacco wars of the 21st century. From its new home base in Lusane Switzerland, PMI, the largest non-governmental tobacco concern⁽¹⁾ and the 3rd most profitable consumer goods company⁽¹⁾ has set its sights squarely on the developing world of Asia, Africa, and Latin America. While PMI isn't under any circumstances abandoning markets in the developed world, its new home puts it much closer to their main targets for their 21st century offensive. See "PMI" page 2

PMI

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Moreover, the exodus from the United States will allow PMI to operate without the restrictions placed on it by tobacco control laws in the United States, and as the Wall Street Journal put it: “The move will make it easier for the tobacco behemoth to market an array of new smoking concepts, each targeted to different foreign populations, who, collectively are expected to smoke 5.2 trillion cigarettes this year.”⁽¹⁾ With fewer restrictions and better access to bigger and growing markets, PMI is poised to reap tremendous profits and in its wake increase death and disease worldwide.

The Split; Parting is such sweet sorrow

The Altria Group, parent company of Philip Morris USA (PMUSA) and PMI has strategically decided to decouple its tobacco operations, effective March 28, 2008. PMI, without US governmental regulation, is set to continue its stunning growth, which in 2006 amassed revenues of \$48.26 billion, as compared with \$18.47 billion for PMUSA.⁽¹⁾ Altria will become a much smaller company with PMUSA and SAB Miller, the parent company of Miller Brewing, as its core businesses. Additionally, Altria will close its headquarters in New York City and relocate to Richmond, Virginia, the home of the newly announced \$500 million research center.⁽¹⁾

Wall Street has greeted the spin-off favorably and feels

that it will be good for PMUSA. Brian Hindo, writing in the January 29th issue of Business Week states, in the short term, most analysts consider Marlboro, with 41% share of the U.S. cigarette market, a fairly recession-proof product.⁽²⁾ Esther Kwon, an equity analyst at Standard & Poors concurs, “It’s pretty low on your list of things to cut back.”⁽²⁾ Moreover, the spin off will allow Altria to use more of its cash to increase its already generous dividends to its share holders. And while pending court cases, a more strictly regulated market has kept Altria stock price down; most analysts see a higher valuation for an independent Philip Morris International.⁽²⁾

Vanessa O’Connell writing for the Wall Street Journal (WSJ) was almost giddy about PMI’s new prospects: “The move would free the tobacco giant’s international operations of legal and public relations headaches in the U.S. that have hindered its growth. The separate entity, for example would be exempt from U.S. tobacco regulations and out of reach of American litigator. Importantly, its practices would no longer be constrained by American public opinion, paving the way for broad product experimentation.”⁽¹⁾

Clearly Vanessa O’Connell and others at the WSJ are bullish on PMI as a non-U.S.-based stand-alone tobacco company; however, she and others might keep it in mind that all the restrictions and headaches that will be avoided by the move, have saved countless of millions of lives. Furthermore, “paving the way for broad product experimentation” is PMI and WSJ speak for and all out assault of new tobacco products on and in the developing world.

With smoking rates up a stunning 42% in Pakistan, 36% in the Ukraine, and 18% in Argentina, PMI is ready to take on the entire global tobacco market. Already, PMI has 15% market share of tobacco sales outside the United States and is preparing to make other major moves. With one important shift, PMI plans to entirely stop the importation of cigarettes from the U.S. Currently, 57 billion cigarettes are produced in the U.S. and shipped by PMI to their international markets. However, starting in a few months, all PMI cigarettes sold internationally will be produced in its own 42 manufacturing centers, the largest of which are in Holland, Russia, Germany, Turkey, and the Ukraine.

PMI is targeting brand and company acquisitions in a broad array of countries, including Pakistan, Mexico, Columbia, and Indonesia as its main stalking horse in its 21st century global offensive. In Pakistan, during the first quarter of 2007, PMI acquired an additional 50.2% stake in Lakson Tobacco Company Ltd., which increased PMI’s total ownership interest in Lakson from 40% to approxi-

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PMI

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mately 98%, for \$383 million.⁽³⁾ In Indonesia, PMI bought Sampoerna, the Indonesian tobacco leader, in 2005 for \$5 billion dollars knowing that smoking rates are estimated to increase there 16% by 2011.⁽³⁾ In Columbia, PMI acquired Coltabaco for \$300 million strategically positioning itself in the 4th largest tobacco market in Latin America. And in Mexico, last year PMI completed the acquisition of an additional 30% stake in its Mexican tobacco business from its joint venture partner, Grupo Carso, S.A.B. de C.V. PMI previously held a 50% stake in its Mexican tobacco business and the transaction brought PMI's stake to 80%. This transaction had a value of approximately \$1.1 billion. These acquisitions coupled with strong sells across Eastern Europe and Turkey, increased PMI's cigarette volume production by 43 billion units, or 5.7%, to 804.5 billion; truly the global industry leader. (Readers interested in learning more about PMI economic performance worldwide should go to: <http://online.wsj.com/article/PR-CO-20080130-903844.html?mod=wsjcrmain>. Their world wide financial maneuvering is truly breath taking).

The take over of other national companies accomplishes among other things two important objectives. Firstly, it should be noted that the Marlboro brand lost 1.9 percent market share outside the United States in 2006. Hence, the buying of other country brand names and company acquisitions allows PMI to not only compete, and make a profit, but also enables them to offset loses when they occur. Secondly, it is much better from a marketing point of view to show up as Sampoerna Tobacco in Indonesia as opposed to solely as Philip Morris.

The situation in Turkey is instructive and representative of PMI's duel strategy of takeover and positioning of their products. Turkey is the 6th largest cigarette market in the world. In 2005, PMI volume increased by 8.6% and their market share there rose to 41.5%. Andre Calantzopoulos, PMI's CEO speaking on the successes in Turkey, was ecstatic: "Our performance there in 2005 was outstanding . . . Not only did we take over market leadership from the national company Tekel, we also had a quality year [which] fueled growth for premium Marlboro and Parliament."⁽³⁾

And while there will be jockeying with British Ameri-

can tobacco for Kenyan and Indian markets, PMI has set its sights on the real prize, China. There are 350 million smokers in China that is 50 million more than the entire population of the U.S.⁽²⁾ China is not only the largest tobacco producer in the world, but China consumes about 40% of the world's cigarettes.⁽²⁾ PMI has cut a very sweet deal with the Chinese government that will allow them to market select Chinese products produced by the China National Tobacco Corporation in Central and Eastern Europe and Latin America. On the other hand, and the real deal, PMI will be able to produce its own Marlboro brand at Chinese state-owned factories. This is no small matter, since currently PMI is limited to importing its cigarettes for sale in China and those are restricted by stringent quotas.⁽¹⁾

It is estimated that 10 million people will die a year from tobacco related diseases by the year 2030 making it the single biggest cause of death worldwide ⁽⁵⁾ and Philip Morris has positioned itself to get most of the credit, read profit, from this carnage.

Even though China is a signatory to the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC); has instituted a citywide smoking ban in Beijing covering restaurants, offices, and hotels; and is trying to clean up its act to make the 2008 Summer Olympics "smoke-free", the reality shows that you can't change social norms overnight. Enforcement has been lax, to say the least. Hirohisa Shimura, a tobacco industry analyst at UBS in Tokyo stated that "It will take time; Chi-

nese people are well-known for their fondness for smoking. You can't change such national character easily."⁽²⁾ Stella Bialous of WHO concurs, "there are 350 million smokers in China – these people are not going to quit tomorrow."⁽²⁾ And while this may not be good news for the health of the Chinese people, and the millions of visitors China attracts, it is great news for PMI.

New Brands; the Shock Troops

Leading PMI's global assault will be a host of new brands, most of them with increased tar and nicotine levels. One new product, Marlboro Intense, concentrates the tobacco of a regular length cigarette, into a half and inch shorter rod leading to more potent puffs. The logic here is that with indoor smoking bans, especially in the developed world, it allows people to get more tar and nicotine in a shorter time when they step out for their nicotine fix. Andre Calantzopoulos, PMI's Chief Executive says there are already "possibly 50 markets that are interested in deploying it."⁽¹⁾ The military analogy wasn't a slip of the tongue;

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TRDRP Will Be Changing

By Charles L. Gruder, Ph.D.

The TRDRP is in the final stages of a strategic planning process to decide how best to continue to have a significant impact on tobacco-related disease and tobacco control in California despite continually declining revenue. In 1990, TRDRP's appropriation was \$32 million; with inflation over the past 18 years, the \$14.55 million in the governor's 2008-09 budget amounts to only \$8 million in 1990 dollars.

The strategic planning, which included stakeholder input, is designed to result in program changes that will serve anticipated research needs over the next 5-7 years. There are likely to be new and modified award mechanisms with new budget caps and durations. TRDRP remains committed to funding research that will have an impact on the human and economic costs of tobacco-related disease in California. The plan will be incorporated in the 2008-09 Call for Applications, which will be issued in late summer 2008 for new grants to be awarded July 1, 2009. The staff plan to host informational meetings to explain the changes. Look for announcements in your e-mail and on our Web site: www.trdrp.org.

17th Cycle Grant Proposals

TRDRP received 193 proposals in the 17th grant cycle. They will undergo peer review to determine scientific merit during the spring, after which the Scientific Advisory Committee will recommend those to be funded based on program priorities and available funds. The number submitted is 9% fewer than in 2007. New grants will start on July 1, 2008.

TRDRP Appropriation in 2008-09 State Budget

The Governor's 2008-09 budget, which was released in January, includes an appropriation of \$14,553,000 for TRDRP. This is a \$2 million reduction from 2007-08, a difference which was due to a one-time augmentation from the unrestricted reserve in the Proposition 99 Research Account, TRDRP's sole funding source. The University of California asked the State Department of Finance to reinstate to TRDRP the \$5,800,000 that is currently budgeted for the Department of Public Health, primarily for support of the California Cancer Registry. The University pointed out that the Registry budget could be maintained if its funds were appropriated instead from the Proposition 99 Unallocated Account. The rationale for this switch of funds is that the Research Account is limited, by constitution, statutes, and court rulings, to research on tobacco-related disease, and TRDRP is the program designated by the state to carry out this mission. Despite this request, these funds were not reinstated to TRDRP's 2008-09 budget.

If this \$5.8 million is not appropriated to TRDRP over 25% of the entire Prop. 99 research account, we will for yet another year be unable to fund a significant number of important scientific research projects on the prevention and treatment of tobacco-related disease. The research program is an integral component of California's effective and internationally recognized effort to reduce the severe human and economic toll of tobacco use. TRDRP-funded research has contributed to the success of the state's tobacco control efforts by identifying more effective policies and strategies for tobacco use prevention and cessation, particularly among those of our state's diverse communities that are disproportionately affected by tobacco use and tobacco-related disease.

Cornelius Hopper Diversity Award Supplement applications due April 25

One of TRDRP's most rewarding initiatives is the Cornelius Hopper Diversity Award Supplements (CHDAS), which provides principal investigators of active TRDRP grants additional funds to mentor young scientists or community members. CHDAS is limited to trainees who either (a) experienced situations or conditions that were an impediment to their education, or (b) who want to conduct research on cultural, societal, or educational problems as they affect the diverse segments of California populations (e.g., socioeconomic, cultural, ethnic, racial, linguistic, and geographic). The aim of the CHDAS is to enhance the trainees' experience and qualifications for tobacco research careers and to expand and strengthen the infrastructure for tobacco research in California. Trainees must be California residents, including those from backgrounds that have been underrepresented in tobacco research.

Currently funded TRDRP principal investigators are encouraged to find qualified candidates and apply for a \$15,000 supplement to their grants. In the past six years, TRDRP has funded 33 CHDAS awards to 27 principal investigators at 15 institutions totaling \$830,132. Please visit the TRDRP Web site: www.trdrp.org "CHDAS Awardees" for the complete list of CHDAS awardees and applications for new supplements.

Two New TRDRP Scientific Advisors

Two new members were appointed to the Scientific Advisory Committee:

Marilyn Newhoff, Ph.D. (2007-2010)

Dean & Professor
College of Health & Human Services
San Diego State University

Sara Courtneidge, Ph.D., DSc(hc) (2008-2010)

Program Co-Director and Professor
The Tumor Microenvironment Program
The Burnham Institute for Medical Research

The Russians Have Come!



On February 19, 2008 members of the Tobacco Related Disease Research Program’s (TRDRP) Senior Staff had the distinct pleasure to meet with 10 tobacco control advocates and researchers at our offices in Oakland California. The delegation was very diverse in their fields of interest ranging from representatives of the Moscow health department and professors of toxicology to members of the Russian Education Department and the Moscow Red Cross. This delegation was sponsored by the United States State Department’s Institute of International Education, whose representatives and 2 translators accompanied them. As the delegation pointed out to us, little has been done in Russia to curb smoking, especially since the collapse of the Soviet Union in 1991. The TRDRP was one of several stops this delegation made in the United States. They

are hopeful that their meetings with tobacco control advocates and researchers will be instrumental in forging a tobacco control movement in Russia.

TRDRP was more than happy to help!



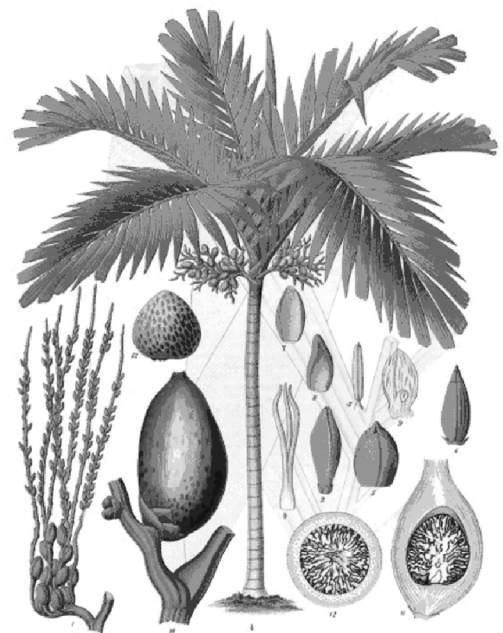
Health Hazards of Chewing Areca

This is the first of a two part article that the authors prepared for Burning Issues. The addictive practices of people world wide often do and don't include tobacco products. With the steady growth of peoples from the Indian sub-continent and other parts of the world, it behooves tobacco control researchers and advocates to familiarize themselves with their tobacco and other addictive practices. The 2nd part of this article will appear in the July edition of Burning Issues. (PG).

Kamlesh Asotra, Ph.D and Rajesh N. Sharan, Ph.D.

The highest prevalence of chewing *Areca* nut and betel-quid, with or without tobacco, occurs in the Asian and Pacific Rim countries. Dry mixture of *Areca* nut, betel nut ingredients and tobacco, called *gutkha*, is very popular for chewing in the Indian subcontinent. *Areca* nut chewing results in copious salivation, which helps to extract various alkaloids in a process aided by slaked lime. This saliva is swallowed for the psychoactive, stimulant, and heightened alertness effects. *Areca* nut is synonymous with betel nut because of associative use of *Areca* nut with betel leaf in betel quid; however, betel plant does not produce a nut of its own. Approximately 600 million people in Southeast Asia and the Pacific Islands chew betel nut. These are nuts of the tree *Areca catechu*, a type of palm tree growing 40-100 feet in height (Figure 1), which is believed to have originated in the Philippines and Malaysia and then cultivated over a wider region. Betel-quid chewing is a distracting activity like chewing gum or smoking a cigarette. Chewing betel nut in small amounts produces a pleasant feeling and can be habit forming because of the addictive nature of its alkaloids. This practice is traced back at least 2,000 years in India and appears to have been much older in some areas, based on archeological evidence of betel nuts in caves⁽¹⁾ and remains of human teeth showing signs of the chewing.

Several studies have demonstrated that *Areca* nut and betel-quid chewing, alone or with tobacco, is the major cause of oral, esophageal, and stomach cancer in Asia.⁽²⁻⁴⁾ Their use by pregnant women also causes reproductive health effects in women and the birth of babies that are usually smaller in body weight and size as that seen for babies of pregnant woman who smoke.^(5,6) Babies born to



Areca catechu L.

Figure 1. *Areca* nut plant with betel nut fruit (adapted from Kohler's "Medicinal Plants")

mothers addicted to *Areca* nut demonstrate a withdrawal syndrome.⁽⁶⁾ *Areca* nut and betel quid, both fresh and in dry form is readily available in several Asian grocery stores in North America, and the public health threat from its use among Cambodian users in the United States and California was first voiced about 15 years ago.⁽⁷⁾ *Areca* nut and betel-quid chewing is also widely practiced by immigrants from Bangladesh and India, living in the United States.⁽⁴⁾ The World Health Organization and the International Association of Cancer Research have published the cancer-causing dangers of *Areca* nut and betel-quid chewing.⁽⁸⁾ The California Environment Protection Agency has listed *Areca* nut as carcinogen subject to the rules of Proposition 65.^(9, 10)

Chronology of *Areca* nut and Betel-quid Use

As hunters and gatherers, humans explored and experimented with grains and fruits and other parts of plants for sustenance. In this quest, humans also discovered pleasure-

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Areca Nut, Betel-Quid and Gutkha

giving properties of several plant products that resulted in the most prevalent addictions, respectively, to alcoholic beverages, tobacco, coffee, and *Areca* nut. Legendary and archeological evidence suggests that modern man began producing alcohol at least ten thousand years ago.⁽¹¹⁾ *Areca* nut was used in the Northern Thailand and Burma in the Indian subcontinent as early as 7,500–9,000 years ago.⁽¹⁾ Coffee⁽¹²⁾ and tobacco cultivation and consumption⁽¹³⁾ began nearly ten and six centuries ago, respectively.

Areca nut and betel-quin chewing has a long and storied history in Asia. In Pali, a kingdom in India, a princess is believed to have given a present of betel to her lover around 500 years before common era (BCE). Somewhere around 430 BCE, Theophrastus described use of *Areca* nuts as a component of the betel morsel. *Areca* nut is mentioned in Sanskrit scriptures such as *Vagbhata* (4th century) and *Bhavamista* (13th century) under the name *guvaka* as a therapeutic agent, and in Chinese texts dating from 150 BCE, it was called *pinlang* (a Malay name). In Persia (modern Iran), there were 30,000 shops that sold betel nut in the capital town during the reign of Khosrau II, the King of Persia during 590 to 628 AD. Arabs and Persians who visited India in the 8th and 9th centuries found the habit deeply rooted. Ali al-Masudi, an Arab historian who traveled through India in 916 AD, described the chewing of betel nut as a national custom. Legend has it that betel nut was used in the funeral pyre of deceased husbands in an ancient act of self-immolation called “Sati” by Hindu widows. People who did not use betel nut were socially isolated.⁽¹⁴⁾

How *Areca* Nut is Prepared and Used

Areca catechu fruit is usually harvested in unripe or ripe forms during September through November. The most popular variety used is the sun-dried *Areca* nut. The ripe *Areca* nuts are “cured” by boiling the nuts for several hours in an aqueous solution containing the bark from the plant *Eugenia jambolana*, jaggery of brown sugar, and various edible oils, and then sun-dried for several weeks. The sun-dried and relatively hard nut is cut into small pieces for chewing. The raw and wet variety of betel nut is mostly used in Taiwan as well as North Eastern and Southern states of India. The North-East Indian variety of *Areca* nut, locally called *kwai* or *tambul* is the raw, unprocessed betel nut chewed as betel-quin. This form of *kwai* chewing causes an instant thermogenic response in the user lasting

2–3 minutes, with significant sweating on the forehead and reddening of the ears and face. This effect is remarkably different from that of the sun-dried, “cured” *Areca* nut used elsewhere in the world.⁽²⁾

The nut is chewed with a betel leaf (*Piper betle*) from an evergreen perennial vine, a small amount of either lime (calcium oxide) or slaked lime (calcium hydroxide), and *catechu* — a dye extracted by boiling the *Areca* tree bark in water. Various flavoring ingredients, such as cardamom, cloves, licorice, peppermint, grated coconut, fennel seed, and sugar syrup are added to betel-quin, and tobacco might be included. The betel leaf is used to wrap up the ingredients into folded packet, commonly called a *quid*, which is then chewed (*Figure 2*).

Women manage and control *Areca* nut and betel-quin business in the matrilineal society of Meghalaya state of North-East India. Teenage girls (*Figure 3*) in Meghalaya are mostly involved in shelling the *Areca* nut (left panel), preparation of betel *quid* (middle panel), and as a chewer. *Areca* nut, betel leaf, and other ingredients of the betel *quid* are also marketed in dry form in India as “Paan Masala.” The tobacco-containing variety of paan masala, called “*Gutkha*” is being used in India at an alarmingly increasing rate.



Figure 2. The betel-quin: Wet variety of Areca nut ('Kwai') used in the NE India. (Clockwise from top left: a betel nut ('Kwai') as plucked from tree, the 'Kwai' (wet variety of betel nut) after de-shelling – ready to use now, a 'Kwai' cut into two pieces, actual size of nut (usually a quarter of the whole nut) which is chewed, the 'Kwai' or betel-quin – half of betel leaf + slaked lime + 1/4th of Areca nut, a betel leaf.

See “*Areca*” page 11



Filtered Tips

By Teresa Johnson, B.A.



It's where you live

A University of California, San Diego School of Medicine study found that more than half of Korean and Chinese immigrant smokers who recently moved to California quit smoking. Social norms played a significant role in this dramatic change.

[*New Year's Resolution: Quit Smoking? Move to California*, Kim Reynolds, January 9, 2008]



Has the Shisha Bar come to an end in France?

Shisha owners fear the worst as smoking hookah in Shisha bars may be coming to an end! Throughout France a new smoking ordinance banning smoking in public places is now being enforced in thousands of restaurants, cafes and bars. This could be the end to over 800 Shisha bars most of which are located in Paris.

Smoking ban could spell the end for France's shisha bars
Selim Saheb Etaba, Yahoo News, December 27, 2007;
http://news.yahoo.com/s/afp/20071227/lf_afp/lifestyle-francehealthtobacco_071227164250

NY youth smoking rates decrease

Smoking rates for New York youth dropped to 8.5% in 2007 from 17.6% in 2001. Health officials attribute the decrease to the recent increases in cigarette taxes, public smoking ordinances and public service announcements. The survey examined youth in public high schools from 9th through 12th grade. [Teenagers in the City Smoke Less, Reports Find, Anthony Ramirez, New York Times, January 3, 2008, http://www.nytime.com/2008/01/03/nyregion/03smoke.html?_r2=&ref=health&ore; source: Public Health in New York City, 2004-2006 New York City Department of Health and Mental Hygiene; http://www.nyc.gov/html/doh/downloads/pdf/public/triennial_report.pdf]

Mental illness and the smoking connection

The link between mental illness and smoking is alarming! 1) 50-80% of people with mental illness smoke; 2) people with mental illness consume 44% of cigarettes sold in the U.S.; 3) people with mental illness smoke a high quantity of cigarettes, in some cases up to three packs a day. What is more alarming is that, until recently, mental health professionals have ignored smoking. Sound the alarm! Finally, mental health professionals realize that smoking can no longer be tolerated, supported or encouraged. Efforts by the mental health profession are now being made to help mentally ill people stop smoking.

[A Hidden Epidemic, Steven Schroeder, November 18, 2007]

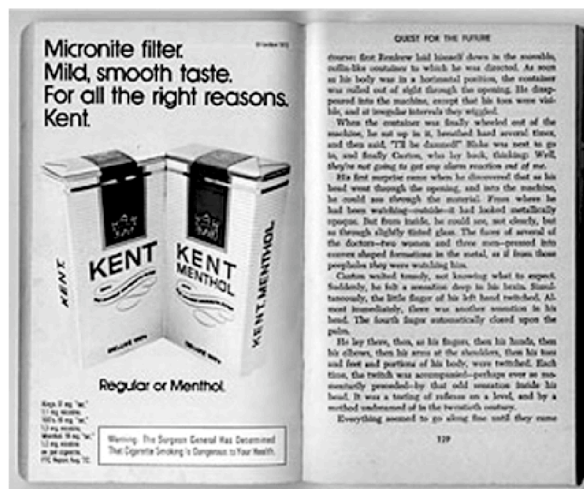


New smoking laws

What do California and Nova Scotia have in common? Beginning in January, both places will have banned smoking in cars with minors. The new laws passed due to health risks associated with secondhand smoke exposure. Breaking the law will cost California motorists up to \$100 in fines.

Car Smoking Ban Among New California Laws, The Associated Press, December 28, 2007, <http://ktla.trb.com/news/local/ktla-carsmoking.0,6644432.story?coll=ktla-newslocal-1> N.S. leads the way

N.S. Leads the way, Vancouver Province, December 14, 2007 <http://www.canada.com/theprovince/news/story.html?id=5bdf-cca9-9171-4797-b609-9aacd6ceb21e>



Paperback Advertising: A Thing of the Past

Back in the 1960's and 1970's paperback cigarette advertisement was the new frontier for the tobacco industry. Science fiction, mysteries novels and even some school books contained cigarette ads. Incredibly enough, the very first book containing these advertisements was the *Common Sense Book of Baby and Child Care* by Dr. Benjamin Spock. Paperback advertisement is a frontier long gone but its remnants in old paperbacks still remain.

[Smoke This Book, Paul Collins, The New York Times]

Florida lawsuits

The tobacco industry may not be out of the woods yet. In its recent decision to overturn a \$145 billion class action lawsuit against the tobacco industry, the Florida Supreme Court has permitted smokers and their families to file individual lawsuits against the tobacco companies seeking compensation for negligence. Folks did just that, as thousands of new lawsuits were filed with the Florida state court by the January deadline.

[Cigarette makers face flood of Florida lawsuits, Tom Brown, Reuters, January 11, 2008 http://news.yahoo.com/s/nm/20080111/hl_nm/tobacco_florida_dc_3&printer=1;y]

PMI

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Marlboro Intense is the front line troops in PMI's global assault on the health and well-being of the world. And if history is any guide, Marlboro Intense will find their way to be sold as single cigarettes (loosies) in poor countries around the world just as single cigarettes are sold here in poor communities of color.

Another new product, Marlboro Mix 9, is a high-nicotine high-tar kretek (i.e., clove cigarette) introduced in Indonesia 2007.⁽¹⁾ To give this product local appeal, Marlboro Mix 9 is infused with cloves and other favoring to actively compete with the many other kreteks and bidis brands of Southern Asian and Indonesia. Already, 90% of the Indonesian tobacco market is dominated by clove-infused Kreteks.⁽³³⁾ Marlboro Mix 9 is selling for about \$1 for a pack of 12. Then there is Marlboro Filter Plus that is currently being sold in Korea, Russia, Kazakhstan and Ukraine. The novelty with this product is PMI has included tobacco in the filter of the cigarette. PMI claims that adding tobacco to the filter not only makes the cigarette smoother, but also lowers the tar level. It escapes this writer how increasing the amount of tobacco in a cigarette will decrease its tar content — Oh, those Philip Morris scientists! And wait, the pack's lid slides straight up, and then folds back, much like a cell phone (I am so excited I am running out to buy a pack now!).⁽¹⁾

And just when you think that you have seen and heard everything from Philip Morris, they proudly trot out MarlboroWides! These shorter and fatter cigarettes were unveiled in Portugal and France in 2006. By 2007 they had made their way to Indonesia where they are flavored by cloves to ensure they would be competitive among the clove-dominated market. However, the real take home message is this cigarette, like many of the new PMI products, is that it has twice the tar and twice the nicotine levels of a conventional U.S. cigarette, thus making them even more addictive and deadly.⁽¹⁾

Philip Morris Astride the World; No Prisoners

It is estimated that 10 million people will die a year from tobacco related diseases by the year 2030 making it the single biggest cause of death worldwide (5) and Philip Morris has positioned itself to get most of the credit, read profit, from this carnage. The World Health Organization estimates that 700 million children are exposed to secondhand smoke, and every day another 80,000 to 100,000 people—many of them children and adolescents in Asia, Africa, Latin America, and Eastern Europe—begin smoking.⁽⁵⁾ Unfortunately, but not unexpectedly the largest in-

creases in smokers will be among women in developing countries, the very target of PMI's 21st century strategy. A Yale University study estimates that 10 million to 20 million of the world's starving and undernourished people could be fed if farmers grew food on their land instead of tobacco.⁽⁵⁾ However, this idyllic situation is unlikely to happen because many farmers get foreign-exchange guarantees for their crops from big tobacco companies. Indeed, PMI's assault is not only laying waste to the people of the world but this all out offensive has serious implications for the earth itself. According to the United Nations Food and Agricultural Organization, nearly 600 million trees a year are cut down just to provide the fuel needed to dry tobacco!⁽⁵⁾ (Can you say Global Warming?) The old adage: What is good for the goose is good for the gander, couldn't be further from the truth when it comes to worldwide tobacco usage. The goose in this case is of course Altria/PMUSA/PMI and the gander being the public health of the world. At its core, there is a fundamental contradiction in Altria spinning off PMI: What is good for Altria and PMI economical is a plague on the world. Frankly, PMI only prospers if millions of people die.

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Areca

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Figure 3. Khasi tribe teen girls of from Meghalaya are professionally shelling Areca nuts from unripe harvest fruit, to make betel-quid. Photographs: Kamlesh Asotra

The Good.....

Areca nut and betel leaf have been widely used for medicinal and social purposes in Asia and the Pacific Rim countries for a long time. In India, betel leaf has been used as a stimulant, a digestive aid, an antiseptic, a breath freshener, and as an aphrodisiac. In Malaysia the betel leaf is used for relief from headache, arthritis, and joint pain, while in Indonesia, the masticated juice from Areca nut and betel-leaf chewing is swallowed for relief from cough and asthma. Betel leaf contains the phenolic compound chavicol, a potent antiseptic, and the alkaloid arakene, with neurological properties resembling cocaine. Hydroxychavicol (HC), another betel leaf component, is a potent COX-1/COX-2 inhibitor and ROS scavenger, which inhibits platelet calcium signaling, thromboxane B2 production and aggregation. HC could be a potential therapeutic agent for prevention and treatment of atherosclerosis and other cardiovascular diseases through its anti-inflammatory and antiplatelet effects, without effects on haemostatic functions.⁽¹⁵⁾

In China, Areca nut has been used as a de-worming agent since the 6th century, and is still used as such in parts of the country. In Thailand and China, the betel plant root is crushed, mixed with salt, and used for toothache. Betel leaves are used as a part of salads in Asia and for culinary purposes. Both Areca nut and betel leaf are widely used in religious and marriage ceremonies in India, Pakistan, and Bangladesh. In New Guinea and Melanesia, Areca nut is as avidly used as in the Indian subcontinent and Taiwan. A compound isolated from betel leaf called chlorogenic acid, has been shown to selectively kill chronic myeloid leukemia.⁽¹⁶⁾ The plant dye called *catechu*, isolated from

the bark of *Areca catechu*, is also extracted in saliva by chewing the Areca nut. Areca nut contains antioxidant polyphenols — catechin, quercetin, flavanoids, leukocytes and hexahydroflavans. Catechin and quercetin are the good compounds also found in tea. However, Areca nut yields a number of alkaloids that are extremely harmful agents.

Part Two of this article will look at the many deleterious effects associated with Areca nut use. (PG)

*Article dedicated to the loving memory of Mrs. Kamini Grover, who passed away on February 16, 2008 in Winnipeg, Canada, after a battle with stomach cancer. Kamini was best known for her remarkable cheer, grit and helping nature. All family members and friends will dearly miss Kamini.

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