Tobacco: The Brown Plague

In the US, it claims more than 400,000 lives every year. (Mokdad 2004)

Tobacco is an addictive, carcinogenic plant.
• The word carcinogenic means “cancer causing.”
• It is not the act of smoking that produces most of the cancer; it is the tobacco itself.
• While it may take 20-40 years for a cigarette smoker to develop cancer, those who chew tobacco can develop mouth cancer much sooner. (Bofetta 2005)

Lung cancer is fatal
• Lung cancer is approximately 88% fatal within five years.
  • Cure rate approximately 12%
  • 5-year survival rate approximately 12%
  (Henschke 1999)
  • Oral cancer 5-year survival rate
    • 25-31% for African Americans
    • 43-53% for Whites (Shiboski 2007)

Smoking and Lung Cancer
• In the absence of tobacco, lung cancer is very rare.
• 85-90% of lung cancer cases are due to active smoking. (NCI 2008)
• Some of the rest (>3,000 cases in US each year) is due to second hand smoke or being around smokers. (NCI 2008)
  • So when considering people who know of who have never smoked getting lung cancer – think again.
• That said, there are or have been other respiratory carcinogens in the environment, the most notable of these is asbestos. (NCI 2008)

References to support this document are given at the end.
Cigarette smoking also...

- Doubles or triples the risk of heart attacks and strokes. While there are only about 20,000 heart attacks that occur under the age of 40 in the US, most of these involve heavy cigarette smoking. 
  - 50% of non-fatal heart attacks in those under 40 are due to smoking (Mahonen 2004)
- Breaks down and ages skin.
- Acts synergistically with other factors to produce non-respiratory cancers such as skin cancer and cervical cancer (NCI 2008)
- Parental smoking causes low birth weight, birth defects, sudden infant death syndrome (Anderson 2005).

All told...

- Tobacco causes more than 400,000 premature deaths in the U.S. (American Heart Association 2008)
- There are only about 2 million deaths every year in the U.S.
- Of all people who died last year in the U.S. 22% would have lived an average of 12 years longer if nobody smoked. (NCI 2008)

“Smoking plays a role in the causation of multiple diseases not included in the big three [Cancer/Heart Disease/Stroke].

- "A partial list, spanning a variety of organ systems, includes: skin conditions (psoriasis), orthopedic problems (disc degeneration), musculoskeletal and connective tissue diseases (osteoarthritis and osteoporosis), diseases of the genitourinary system (impotence), vision problems (cataracts, macular degeneration, optic neuropathy), gastrointestinal conditions (ulcers, Crohn's disease), hearing loss and oral problems (periodontal disease)."

Warner et al. 2009

Tobacco contains nicotine

- Nicotine is highly addictive
- Addictive: Nicotine changes your body so that your body needs the nicotine, and you crave it.
- Once you are addicted to nicotine it is difficult but not impossible to quit. Many, many people do successfully quit smoking. (American Heart Association 2008)

If you are trying to quit, some common withdrawal symptoms are:

- Intense cravings for tobacco, concentration problems, mood problems (anger, anxiety, depression), headaches, weight gain.
- Symptoms peak in 48 hours, but can last 6 months.

Self Evident...

Many, if not most, non-smokers find second-hand cigarette smoking very unpleasant.

A famous saying is: "kissing a smoker is like licking an ashtray."
The tobacco industry wants you to smoke.

The tobacco industry tries to keep the natural nicotine levels of the tobacco high. The tobacco industry deliberately targets children, because it is much more likely for a child than an adult to start smoking. In the past, the tobacco industry has behaved as an organized crime unit and has been formally charged with numerous counts of racketeering.

If all this is true, why does President Obama smoke?

• Because he is unable to quit, despite numerous attempts.
• He has expressed concern and regret that his smoking may make it more likely for youth to take up smoking
• He has vowed never to smoke inside the White House.

If all this is true, then why is tobacco legal?

• Because congress hasn’t made it illegal.
• In 1998 Congress missed passing a bill (authored by Senator John McCain) by just three votes. The bill would have authorized the FDA to regulate tobacco.
• The FDA then sued for jurisdiction, saying nicotine was a drug, and cigarettes were a drug delivery system.
• The Supreme Court found against the FDA and for the Tobacco Industry.

FDA versus Big Tobacco

• The supreme court basically said that the current laws under which the FDA operates would leave the FDA no option other than a complete ban on cigarettes.
• What are the laws under which the FDA operates? Together, they translate to say that a drug has to be "safe" relative to its efficacy. Tobacco carries enormous risks and has no efficacy.
• Since the banning of cigarettes is not the intent of congress, the FDA cannot have jurisdiction.

The Supreme Court

"By no means do we question the seriousness of the problem that the FDA has sought to address. The agency has amply demonstrated that tobacco use, particularly among children and adolescents, poses perhaps the single most significant threat to public health in the United States. Nonetheless, no matter how "important, conspicuous, and controversial" the issue, ... an administrative agency's power to regulate in the public interest must always be grounded in a valid grant of authority from Congress."

— Justice Sandra Day O'Connor for the Supreme Court
History of tobacco in the U.S.

Search for Bright Leaf Tobacco

“To tell the truth about it, ’twas an accident. I commenced to cure it and it commenced to git yallow. It kep’ on yallowin’ and kep’ on yallowing twell it got clar up ... it looked so purty. ... when it was cured it was ’musement for folks to come and see it.”

Slade’s Slave Stephen; quote taken verbatim from Duke Homestead Museum literature.

Photo Source: http://www.rootsweb.ancestry.com/~ncccha/images/historicalmarkers/brightleaftobaccors.jpg

Bright Leaf Tobacco originated in Caswell County, North Carolina on the Slade Farm in 1839. Today it is a product with strong global demand.

Tobacco Timeline

• Late 19th century: people used tobacco in very small quantities. Cigarettes were rare. So was lung cancer
• 1884 James Bonsack perfected the cigarette manufacturing machine. Each machine could produce 120,000 cigarettes a day.
• 1884 - present (For more than a century): The tobacco industry launched an aggressive advertising and bribery campaign.

Tobacco Timeline Continued

• 1890 - Washington Duke bought out his competitors and formed the American Tobacco Company. Buck Duke headed up British American Tobacco
• 1892 - Book safety matches invented
• 1902 Phillip Morris, a recently formed British company, moved its headquarters to New York.
• 1911 - Antitrust suit filed. American Tobacco split into four companies: RJ Reynolds; Liggett and Meyers, Lorillard, and American Tobacco

Tobacco Timeline Continued

• 1900-present: The increase in lung cancer incidence was striking and obvious to all in the medical community (see the next two slides)
• 1949: In a landmark cohort study on thousands of British Physicians, Doll and Hill showed that doctors who smoked were 20 times more likely to develop lung cancer than doctors who did not smoke. Their numbers provided irrefutable proof that the lung cancer epidemic was due to smoking.
The next slide shows:

- Three graphs (curves)

- Graph 1 is the per-capita consumption of cigarettes plotted against time.

- Graph 2 is the male lung cancer death rate plotted against time. If moved back 20 years, it would be almost super-imposable with Graph 1.

- Graph 3 is the female lung cancer death rate plotted against time. It is lower than the males, because women started smoking in earnest a couple of decades later than men. The female rates of lung cancer are just now increasing substantially.

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Tobacco Use in the US, 1900-2004


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1959: Framingham researchers reported an apparent robust association between cigarette smoking and future heart attacks. However, in the discussion of their results, they tried to explain away the association as "secondary to other factors." It took several more years of the same results before they labeled tobacco as a risk factor for heart attacks.

Time out: What is Framingham?

Tobacco Timeline Continued

What is Framingham?

Framingham is a town in Massachusetts. There is a long term study that originated there on the causes of heart disease. Most residents participate. The study began in 1948 and is ongoing now. Each new generation is enrolled. Currently, participants are enrolled in the same study that their great-grandparents were enrolled in.

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Framingham study continued.

- By 1970, the Framingham Study had listed five strong risk factors for heart attacks. Today these are called "classic risk factors."

- They are: (1) family history; (2) high blood pressure; (3) high cholesterol (in the blood); (4) cigarette smoking; (5) diabetes melitus.

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Back to the Tobacco Timeline

- 1964 Surgeon General Luther L. Terry issued the first Surgeon General's report on Smoking and Health.

- 1987 Surgeon General Leroy E. Burney declared it to be the official position of the U.S. Public Health Service that a causal relationship exists between smoking and lung cancer.
1965 Congress mandated the first health warning on cigarette packs. The warning read “Cigarettes may be harmful your health.”

1968 Congress changed the warning on cigarette packs to “Cigarettes are harmful your health.”

1969 Congress banned cigarette advertising on television and radio. Prior to this, cigarette jingles such as “Winston tastes good like a cigarette should...” were constantly played; every little boy wanted to be the Marlboro Man and every little girl wanted to be the Virginia Slims model.

1984: Congress required four rotating health warning labels on cigarette packages and advertisements:
1. Smoking causes lung cancer, emphysema, heart disease and may complicate pregnancy.
2. Quitting smoking now greatly reduces serious risks to your health.
3. Smoking by pregnant women may result in fetal injury, premature birth, and low birth weight.

1988: California Proposition 99

Raise tobacco tax from ten cents to 35 cents per pack of cigarettes with Revenues earmarked mostly for anti-tobacco education. 30%, however, was earmarked for the environment.

As published in JAMA, one of the world’s most respected peer-reviewed journals:

After spending $21 million to defeat proposition 99 and being unsuccessful, the tobacco companies simply bought the Governor of California, Pete Wilson.
In August 1990, Governor Pete Wilson was the guest of a Philip Morris fund raising dinner. Couples paid $5000 to the Governor's campaign to attend. That night, Wilson also received a $25,000 contribution directly from Philip Morris to his inauguration.

In January, 1991, Governor Wilson ordered the California Department of Health Services NOT to sign a new $16 million anti-tobacco media campaign contract, halting the campaign midstream and canceling already produced ads that were scheduled for broadcast and publication.

He said that the funds that had been earmarked for the media anti-tobacco campaigns were urgently needed to pay for Medical prenatal services for the poor.

When reminded that Proposition 99 prohibits use of its funds for health programs that receive federal support, he proposed that the funds be used for prenatal services for illegal aliens.

But a couple of years later, Wilson sponsored legislation to halt all medical care including vaccinations for illegal aliens.

At no time did he suggest that the 30% of funds earmarked for the environment, which included such things as buying parks and protecting the mountain lion, be diverted.

The American Heart Association and the American Lung association sued in order to continue the anti-tobacco media campaign and won.
The American Cancer Society was missing in action. Speculation was that it also was in the pockets of big tobacco. I recall that its president was a member of Pete Wilson’s cabinet.

In the end, Proposition 99 was very successful. This article from the New York Times dated April 3, 1994 reports that California smokers were quitting at three times the National rate. However, because there were now fewer smokers, the new money coming in from cigarette taxes was dwindling. Today, California continues to have one of the lowest smoking rates in the country.

Proposition 99 Outcome

In fact, buying state government officials has been part of Big Tobacco’s standard operating procedures for many years.

Pete Wilson Saga Unique?

False.

Local communities tried to curb smoking ...

In the early 1990’s there was a proliferation of local anti-tobacco ordinances concerning clean air, youth access and advertising. By 1995 more than 1000 communities had enacted legislation restricting smoking in public places or regulating the sale to minors.


But state legislatures fought back for Big Tobacco

But by 1996, 29 states had passed preemptive legislation eliminating the authority of local jurisdictions to enact their own legislation to control the tobacco epidemic.
Victor Crawford, a former lobbyist for the Tobacco Institute explained:

“We could never win at the local level... so the tobacco companies’ first priority has always been to preempt the field, preferably on the federal level, but at least on the state level, because the health advocates can’t compete with me on the state level.”

Victor Crawford, 63, anti-smoking activist; of throat cancer; in Baltimore, Maryland. In 1992 the life-long smoker learned he had terminal cancer, and in his final months he became an eloquent crusader against big tobacco. In Maryland he helped win passage of the sort of smoking restrictions he had once worked against as a lobbyist of the Tobacco Institute.

Why would a tobacco lobbyist turn against tobacco?

The obvious reason is correct...

Why was tobacco banned on domestic flights?

- Reports of deaths among flight attendants due to second hand smoke.
- 1991 Flight attendant class action suit against Big Tobacco began. The suit alleged that attendants who did not smoke themselves had developed fatal diseases such as lung cancer and emphysema from breathing in second hand cigarette smoke on the airplanes. The case was eventually settled in 1997 before going to jury as the tobacco industry agreed to fund a $300 million research foundation and pay $49 million in attorney fees and court costs. They did not admit to wrong doing.

The turning point: The Brown and Williamson Documents

- 1994: Brown and Williamson internal Documents were “stolen” and passed on to the University of California.

The word stolen is in quotes because there is a law (whistle-blowing law) in effect, that says if you steal something for the sole purpose of uncovering a much worse crime, you are not guilty of stealing and cannot be prosecuted.
Prior to 1994, nearly all anti-tobacco lawsuits failed, or settled for "pennies" out of court.

In 1994, thousands of pages of Brown and Williamson's internal documents, spanning 40 years were anonymously (from "Mr. Butt") donated to UCSF.

On June 29th, 1995, after several unsuccessful attempts by Brown and Williamson to prevent release of the documents, the California Supreme Court allowed UCSF to make the documents public.

Covered up their own early findings of the dramatic ill health effects of smoking.

Created fake scientific organizations ("Tobacco Institute", "Council for Tobacco Research") that published fraudulent research on a regular basis.

Deliberately created as much confusion in the scientific community as possible.

Produced cigarettes with as high nicotine levels as naturally possible with a written goal to addict people quickly - and quashed research on low nicotine cigarettes.

Conducted mass advertising targeting children and teens. Who loves Joe Camel?

Who loves Joe Camel?

Again, Who Loves Joe Camel?
Once More: Who Loves Joe Camel?

Okay... So what now?

The original settlement between tobacco and the states

- Payments totaling $365B.
- Recognition of the authority of the FDA
- Regulations against environmental tobacco smoke
- Substantial penalties if tobacco use among children did not decrease to specified levels.
- Ended tobacco liability to the states.

But Recall:

- In 1998: Congress failed by 3 votes to give jurisdiction to the FDA and the Supreme Court said that if the FDA acted in accordance with the current laws, it would have no option except to ban tobacco. Therefore, congress would not only have to grant authority to the FDA to oversee tobacco but would have to pass new laws specific to tobacco that would allow the FDA to regulate tobacco without banning it outright.

But because Congress failed to give jurisdiction to the FDA

- On November 20th, 1998, the tobacco industry clinched a $206B settlement. This settlement was far narrower than the originally proposed settlement. In particular,
  - Per pack cost increase is only $0.40
  - FDA does not have jurisdiction
  - No financial penalties if smoking rates fail to decline

1999 Federal Lawsuit


1998:
- Settlement with the States
- In April 1997, negotiations between the tobacco industry and the state attorneys general who had collectively sued the tobacco industry to recoup Medicaid funds spent on treating tobacco related diseases.
Specific Charge

- Conducting the affairs of the enterprise through a pattern of racketeering activity.

rack·et·eer
(r k·et·ir)
n.
- A person who commits crimes such as extortion, loansharking, bribery, and obstruction of justice in furtherance of illegal business activities.
- intr.v. racketeered, racketeering, racketeers
- To carry on illegal business activities that involve crimes.

How much Money?

- “This is an action to ... compel defendants to disgorge the proceeds of their unlawful conduct.”

How much Money?

- The United States of America is suing Big Tobacco for 1 trillion dollars.

United States vs. Big Tobacco

- Grounds for lawsuit (as stated in the legal brief).
- In December, 1953, Paul Hahn, President of the American Tobacco company sent a telegram to the other cigarette company presidents, suggesting a meeting to formulate an industry response to studies concluding that smoking caused lung cancer and possibly caused other diseases.

Grounds for Lawsuit

- On December 15th, 1953, the chief executives of five tobacco companies met at the Plaza Hotel in New York City to form an illegal enterprise.
“The enterprise functioned as a continuing unit for more than 45 years through unlawful means to:

(1) preserve and enhance the market for cigarettes and the defendants’ own profits, regardless of truth, the law, or the health consequences to the American people;

(2) deceive consumers into starting and continuing to smoke by maintaining there was an open question as to whether smoking causes disease, despite the fact the defendants knew otherwise;

(3) deceive consumers into starting and continuing to smoke by [pretending to undertake] an obligation to do everything in its power, including fund independent research, in order to determine if smoking causes cancer or other diseases, while concealing and suppressing relevant research and funding biased or irrelevant research.

(4) deceive consumers into becoming or staying addicted to cigarettes by maintaining that nicotine is not addictive;

(5) to deceive consumers into becoming or staying addicted to cigarettes by manipulating the delivery of nicotine to smokers while at the same time denying that they engaged in such manipulation.

(6) deceive consumers, particularly parents and children by claiming that they did not market to children, while engaging in marketing and advertising with the intent of addicting children into becoming lifetime smokers.

The fraudulent, misleading and unlawful efforts of the Enterprise have continued from its inception to the present and threaten to continue into the future.

The brief then goes on to list numerous specific charges of mail and wire fraud.

How strong is the government’s case?

From the Judge’s opinion:

“Except for Liggett, defendants do not dispute that the government has adequately alleged the elements of a RICO claim. What they do dispute is whether the Government has adequately alleged that Defendants’ racketeering activity will continue into the future, so as to warrant the broad equitable relief sought.”
The following summary of Judge Kessler’s final opinion (on the next slide) is from tobaccofreekids.org

On August 17, 2006, U.S. District Judge Gladys Kessler issued a final opinion in the U.S. government's landmark lawsuit against the major tobacco companies that found the companies have violated civil racketeering laws and defrauded the American people by lying for decades about the health risks of smoking and their marketing to children.

Judge Kessler said:

“This case) is about an industry, and in particular these Defendants, that survives, and profits, from selling a highly addictive product which causes diseases that lead to a staggering number of deaths per year, an immeasurable amount of human suffering and economic loss, and a profound burden on our national health care system. Defendants have known these facts for at least 50 years or more.”

What Judge Kessler ordered:

1. All Defendants, Covered Persons and Entities are permanently enjoined from committing any act of racketeering, as defined in 18 U.S.C. § 1961(1), relating in any way to the manufacturing, marketing, promotion, health consequences or sale of cigarettes in the United States.

2. All Defendants, Covered Persons and Entities are permanently enjoined from participating in any way, directly or indirectly, in the management and/or control of any of the affairs of Center for Tobacco Research, Tobacco Institute, or The Center for Indoor Air Research ("CIAR")

Note to class: these are all fake scientific entities created by the tobacco companies.

3. All Defendants, Covered Persons and Entities are permanently enjoined from making, or causing to be made in any way, any material false, misleading, or deceptive statement or representation, or engaging in any public relations or marketing endeavor that is disseminated to the United States public and that misrepresents or suppresses information concerning cigarettes.
What Judge Kessler ordered

• 4. All Defendants, Covered Persons and Entities are permanently enjoined from conveying any express or implied health message or health descriptor for any cigarette brand either in the brand name or on any packaging, advertising or other promotional, informational or other material. Forbidden health descriptors include the words “low tar,” “light,” “ultra light,” “mild,” “natural,” and any other words which reasonably could be expected to result in a consumer believing that smoking the cigarette brand using that descriptor may result in a lower risk of disease or be less hazardous to health than smoking other brands of cigarettes.

• 5. Each Defendant shall be required to make separate corrective statements concerning each of the following: (a) the adverse health effects of smoking; (b) the addictiveness of smoking and nicotine; (c) the lack of any significant health benefit from smoking “low tar,” “light,” “ultra light,” “mild,” and “natural,” cigarettes; (d) Defendants’ manipulation of cigarette design and composition to ensure optimum nicotine delivery; and (e) the adverse health effects of exposure to secondhand smoke (also known as environmental tobacco smoke, or ETS).

• 6. All corrective statements shall be placed in a prominent position on any publicly-accessible website of each Defendant for the duration of this Final Judgment and Remedial Order, including the following websites and/or any other web address that provides access to Defendants’ corporate website or any successor website thereto, and the Internet Document Websites created or maintained pursuant to Section III(C)(¶8-9).

End quote

• But … no money was awarded!
• Previous decisions by an Appellate Court had stripped Judge Kessler of the authority to award money in racketeering cases.

Both sides have appealed

• The US Government appealed because they want money. (They appealed the appellate decisions).

• The tobacco companies have appealed because they want to keep lying – particularly about the “light” cigarettes.

Result

• Both the US government and the Tobacco companies have filed appeals. Both appeals are ongoing.

For more information:
www.usdoj.gov/civil/cases/tobacco2/index.htm
Breaking News!!!

• June 12, 2009 – Congress passes legislation allowing the FDA to regulate (but not ban) tobacco products
• Awaiting President Obama’s signature…

Obama signs anti-tobacco law!!

• June 22, 2009
• There is hope for a brighter tomorrow…

For more information,

This lecture was about...

• Tobacco in the U.S.
• We did not cover tobacco overseas.
• To make up for lost revenue in the U.S., the tobacco companies have to sell more tobacco overseas.
• There are notable struggles against tobacco occurring overseas involving China, India and the World Health Organization.

One more Slide

(see next slide)

DIED. The Marlboro Man

• DIED. DAVID MCLEAN, 73, actor; of lung cancer; in Los Angeles. The appropriately rugged McLean saddled up for appearances on the TV series Bonanza and Gunsmoke, as the star of the short-lived Tate - and in numerous Marlboro-cigarette spots. He is the second "Marlboro Man" to die of lung cancer.

References/Additional Readings

Questions for paper

• If you select Tobacco as the topic for your paper, you must answer this question by searching the original medical literature. You may supplement the medical literature with other on-line or written sources. Be sure to list all references. Do not exceed five pages not including references, double spaced, Times New Roman, font size 11, default margins.

Questions for paper

• Choose between two to four remedies (eg nicotine patch) that aid people in quitting smoking. Discuss the efficacy and safety of these remedies.

End your paper with your advice to a friend who wants to quit smoking.

Presentation:
For students presenting on Tobacco

• Although this is a team presentation, each person on the team must be featured for between 2 and 4 minutes in this team presentation. On average each person should speak (or act) for at least 3 minutes.

• See syllabus for grading rubric. The class (non-presenters) will also be judging your presentation.

Presentation details

• The highest smoking rates in the US are in Kentucky (28.6%) and West Virginia (25.7%). Your team’s job is to investigate why these states have the highest smoking prevalence, and design a campaign or strategy that is specific to these states to get people to quit.