

Cancer Epidemiol Biomarkers Prev. Author manuscript; available in PMC 2015 January 01.

Published in final edited form as:

Cancer Epidemiol Biomarkers Prev. 2014 January; 23(1): 32–36. doi:10.1158/1055-9965.EPI-13-0798.

# The Changing Public Image of Smoking in the United States: 1964–2014

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#### **Abstract**

Tobacco use behaviors have changed significantly over the past century. After a steep increase in cigarette use rates over the first half of the 20th century, adult smoking prevalence rates started declining from their peak reached in 1964. Improved understanding of the health risks of smoking has been aided by the United States Surgeon General's Reports, issued on a nearly annual basis starting in 1964. Among the many forces driving down smoking prevalence were the recognition of tobacco use as an addiction and cause of cancer, along with concerns about the ill-effects of breathing secondhand smoke. These factors contributed to the declining social acceptance of smoking, especially with the advent of legal restrictions on smoking in public spaces, mass media counter- marketing campaigns, and higher taxes on cigarettes. This paper reviews some of the forces that have helped change the public image of smoking, focusing on the 50 years since the 1964 Surgeon General's report on smoking and health.

The United States over the past century has seen a dramatic shift in attitudes toward tobacco, which in turn has influenced the rise and fall of cigarette consumption and smoking related cancer deaths (1–4). This paper reviews some of the various forces that have helped change the public image of smoking, with a particular focus on the 50 years since the 1964 Surgeon General's report on smoking and health.

# Tobacco use and marketing before 1964

Cigarette smoking grew rapidly in America in the early part of the twentieth century, following the invention of automatic cigarette rolling machines and the rise of advertising and promotion on an unprecedented scale (4). Cigarette use grew despite opposition from temperance advocates and religious leaders concerned that smoking would lead to alcohol abuse and narcotic drugs, especially among youth (1, 4). During the first half of the century, however, neither the public nor most physicians recognized a significant health threat from smoking, even though the rise of lung cancer prompted epidemiological research beginning as early as the 1920s (1, 4). With the end of Prohibition (in 1933) and the decline of the temperance movement, advertising in the 1930s and 1940s was defined by campaigns which often included explicit health claims, such as "They don't get your wind" (Camel, 1935), "gentle on my throat" (Lucky Strike, 1937), "play safe with your throat" (Phillip Morris, 1941), and "Fresh as mountain air" (Old Gold, 1946) (4, 5). Smokers of Camels were even encouraged to smoke a cigarette between every course of a Thanksgiving meal--as an "aid to

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digestion." Except for a brief period around the Great Depression, per capita cigarette consumption increased steadily until 1953 (1, 4, 5), by which time 47% of American adults were smoking cigarettes (58% of males and 36% of females), and half of all physicians (6).

In the early 1950s evidence implicating smoking as a cause of lung cancer began to appear more frequently in medical journals and the popular press (1, 4). Cigarette sales declined in 1953 and the first part of 1954, but quickly rebounded as manufacturers rushed to introduce and market "filtered" cigarettes to allay health concerns. The emergence of the filter tip cigarette was a direct response to the publicity given to evidence linking smoking and cancer, and consumers reacted by shifting over to the new designs (4, 7). In 1952 filtered cigarettes accounted for less than 2% of sales; by 1957 this had grown to 40% and would surpass 60 % by 1966 (7, 8). The advertised benefits of filters were illusory, however, given that smokers of filtered brands often inhaled as much or more tar, nicotine, and noxious gases as smokers of unfiltered cigarettes (9–11). Filters were not really even filters in any meaningful sense, since there was no such thing as "clean smoke." The industry had recognized this as early as the 1930s, but smokers were led to believe they were safer (4).

By 1957 the evidence implicating smoking as a causative factor in lung cancer had been established to a high degree of scientific certainty, leading to the first official statement from the US Public Health Service implicating smoking as a cause of lung cancer (12, 13). The tobacco industry also took notice of the emerging evidence, but instead of acknowledging what they knew to be true, hired a public relations firm (in December 1953) to implement a massive campaign to challenge the evidence (1, 4, 14). Medical doctors and academic scholars were hired to defend the industry's claim that the evidence was "merely statistical" or based only on "animal evidence" (1, 4, 14). The public relations campaign -- which would extend for over 40 years -- was designed with the goal of reassuring the public, especially current smokers, that the question of whether smoking caused harm was an "open controversy" (1, 4, 14).

# Tobacco use and marketing after 1964

The 1964 report of the Surgeon General's Advisory Committee marks the beginning of a significant shift in public attitudes about smoking (1, 2, 4). Declining adult per capita cigarette consumption after 1964 followed increasing public appreciation of the dangers of tobacco use, accompanied by increasing efforts to regulate the use, sale, and advertising of tobacco products (15, 16). In the U.S. in 1965 approximately 42% of adults were current smokers (52% of men and 34% of women) (17). By contrast, in 2011 less than 20% of adults were current smokers, with significant variations from state to state (18). Also, a major defining characteristic of smoking prevalence today is socio-economic status with higher smoking rates found among the poor and less educated and also among individuals with mental health and substance abuse diagnoses (19). Adult per capita consumption has declined by about 70% since 1963, the year before the Surgeon General's report (20). Total per capita consumption continued to rise until 1975, however, due in part to a significant increase in youth smoking (20).

Since 1964 there has also been a dramatic shift in the public's knowledge and attitudes about smoking (2). In the mid-1960s it was still common to see doctors, athletes, and radio, movie and TV celebrities smoking or advertising different cigarette brands, and cigarette companies were major sponsors of popular shows on all three television networks (21). The Federal Trade Commission (FTC) in 1967 commented on how it was "impossible for Americans of almost any age to avoid cigarette advertising" (8), which is hardly surprising given the levels of money involved. In 2010, the US Surgeon General reported that from

1940 into 2005, an estimated \$250 billion was spent in the U.S. on cigarette advertising (adjusted for inflation, in 2006 dollars) (22).

#### The Modern Era of Tobacco Control

The 1964 Surgeon General's report received widespread media coverage and prompted a decline in cigarette sales in the first two months following its release (8). In 1966 the first cautionary label appeared on cigarette packs, stating that cigarette smoking "may be hazardous to your health" (8, 15). The warnings were updated in 1970 and again in 1985, although their effectiveness has been the subject of much scientific debate (8, 15, 23–25). In 1967, anti-smoking advertisements began to air on television as part of a Federal Communications Commission Fairness Doctrine ruling requiring broadcasters to run an anti-smoking advertisement for every cigarette ad aired (15, 16). Compliance with this ruling was incomplete, as cigarette ads ran in a ratio of about 4 to 1 compared to anti-smoking ads. Despite this inequality, smoking rates dropped dramatically during this period (16). Cigarette ads were banned from television and radio in 1971, which also put an end to Fairness Doctrine advertisements (15, 16).

The public perception of smoking about this time began to shift, making smoking a less acceptable social practice. A poll conducted in 1966 found only 40% of Americans recognizing smoking as a major cause of cancer, while 27% said it was a minor cause and one-third said the science was not yet able to tell (2). In 2001 Gallup re-asked this same question and found 71% of Americans naming smoking as a major cause of cancer, with 11% saying it was a minor cause and 16% unsure (26).

Public attitudes regarding the cigarette smoke of others have also changed over the past 50 years. In the 1960s and even into the 1970s and '80s smoking was permitted nearly everywhere: smokers could light up at work, in hospitals, in school buildings, in bars, in restaurants, and even on buses, trains and planes (1, 4). Evidence regarding the health consequences of secondhand smoke strengthened in the 1970s and '80s, and policies limiting where people could use cigarettes became more common (1, 4, 27). By 2012 thirty states and hundreds of individual communities in the U.S. had adopted comprehensive laws prohibiting smoking in workplaces, restaurants and bars (28). The shift in public attitudes is reflected in Gallup polls from 2001 to 2011, where the percentage of Americans favoring a ban on smoking in all public places increased from 39% to 59% (29). Cigarette use has become more inconvenient, which has further helped to reduce smoking (30–32).

The 1988 Surgeon General's Report helped to further stigmatize tobacco use. The report examined why people persist in smoking despite recognition of its harms, and concluded that smoking was not just a "habit" but was in fact addictive in ways similar to the dependency-creating powers of heroin, cocaine and other drugs of abuse (33). In 1980, only 37% of smokers had labeled smoking an addiction, but by 2002 that had risen to 74% (23, 26).

Increasingly, research has demonstrated that the interventions that have the greatest impact on reducing tobacco use are those that alter the social contexts and incentives for using tobacco (15, 34, 35). Research has shown that the most potent demand-reducing influences on tobacco use have been interventions that impact virtually all smokers repeatedly, such as higher taxes on tobacco products, comprehensive advertising bans, graphic pack warnings, mass media campaigns, and smoke-free policies (15, 34, 35). Despite promises of the efficacy of different stop smoking treatments, there is not much evidence that any of these therapies have dramatically reduced rates of tobacco use because too few smokers use them when they try to quit (36).

# The Tobacco Industry's Response

As public health efforts to discourage tobacco use evolved over the past half century, so too did the industry's efforts to counter such efforts to promote tobacco use to protect their financial interests (1, 4, 14–16, 27). Publicity surrounding the 1964 Surgeon General's report provided yet another opportunity for cigarette companies to compete for smokers, more and more of whom were becoming concerned about the dangers of smoking. To do so, the companies capitalized on the acknowledged link between tar inhalation and cancer by engineering and marketing cigarettes with lower machine-measured tar yields, even though they recognized that these would not necessarily deliver less tar and therefore less disease (37). Cigarette manufacturers recognized that low tar cigarettes were not a real solution to the smoking and health problem, since "low tars" did not in fact deliver any less tar into the lungs of smokers (9–11). Unfortunately, many smokers switched to low tar cigarettes believing them to be safer (4, 37–40). The evidence today is that smoking "low tar" cigarettes can be even more dangerous—since smokers tend to smoke such cigarettes more intensively—drawing the smoke more deeply into the lungs, for example (41). Filters also reduce the particle size of smoke, allowing it to be more deeply inhaled (42).

In the years following the release of 1964 Surgeon General's report the tobacco industry also stepped up its public relations campaign aimed at reassuring the public, especially smokers, that there was no real link between smoking and disease (14). The success of this campaign is described in the 1981 Federal Trade Commission report, which found millions of Americans still poorly informed about the serious health risks of smoking (23).

The 1998 Master Settlement Agreement (MSA) between the cigarette companies and various state attorneys general also had a non-trivial impact on the tobacco industry (1, 14, 43). The MSA settled state lawsuits against the industry for smoking related costs in the states' Medicaid systems, scheduling the states to receive billions of dollars while also increasing the price of cigarettes (43). The MSA also required the release of previously secret internal company records, revealing much of what they had known about smoking-disease links and effectively ending the industry's false controversy campaign (1, 4, 14). In 1999, the US Department of Justice (DOJ) filed its own suit against the tobacco industry for violating the Racketeer Influenced and Corrupt Organizations (RICO) Act. In August 2006, U.S. District Judge Gladys Kessler concluded that the tobacco companies "conspired to violate the substantive provisions of RICO" and in fact "violated those substantive provisions" (44).

In October 2000, Philip Morris on its website acknowledged "an overwhelming medical and scientific consensus that cigarette smoking causes lung cancer, heart disease, emphysema and other serious disease in smokers" (45). Today, all of the major tobacco companies have websites acknowledging that smoking is a cause of disease and that smoking is addictive. Yet none of these companies has ever admitted that millions of people have died as a result of smoking their products or that addiction to nicotine can cause death. No company has admitted ever marketing to children, or lying to the public, or forming a conspiracy to deny the hazards of smoking, or that the cigarettes that they sell today are as deadly as those sold a century ago (4). In court, the companies continue to challenge allegations about nicotine addiction and smoking causing illness. The tobacco companies have not yet accepted responsibility for their past illegal acts, and still today oppose remedial actions such as corrective statements (as ordered by the Court in the DOJ case) and policies that would discourage smoking, notably graphic health warnings, responsible retailing standards, and higher cigarette taxes earmarked for cancer research. The companies have also not made good on their repeated promises to stop producing cigarettes, should they ever be shown to be causing bodily harm (45, 46).

# Implications for the Future

The tobacco industry is continuing to evolve and adapt to new regulations on tobacco products, a declining domestic cigarette market, and growing international cigarette business (25). Perhaps the most interesting recent development has been the rapid growth of electronic cigarettes. What started out as a novelty sold primarily on the Internet has quickly grown into a billion dollar a year enterprise pushing cigarette makers to enlarge their offerings (47). In 2008, RJ Reynolds (now Reynolds American, Inc.) acquired the Conwood Smokeless Tobacco Company and gave that entity a new name: the American Snuff Company. In 2009 Reynolds launched Camel Snus, a pouch-like device for sucking in the mouth, and the following year introduced Camel dissolvable tobacco orbs and sticks. Reynolds has also acquired the rights to market Zonnic nicotine replacement products and purchased Niconovum AB, a Swedish company making oral nicotine replacement therapies. And in 2013 Reynolds began test marketing a new electronic cigarette ("Vuse") complete with the company's first television ads since the 1970s.

Meanwhile Lorillard, makers of Newport cigarettes, in 2012 acquired Blu Electronic Cigarettes, a leading manufacturer of cigarettes designed to be "vaped" rather than "smoked." And Philip Morris has entered this territory. The company in 2003 changed its name to Altria, and in 2009 acquired the US Smokeless Tobacco Company. Shortly thereafter, Altria began marketing Marlboro Snus along with other smokeless products such as Skoal and Copenhagen in the United States, while devoting an increasing share of resources to its business overseas. And in 2013 Phillip Morris announced that it, too, would introduce its own electronic cigarette, the "Mark Ten."

While some predictions have cigarette consumption dropping to near trivial levels in the United States over the next half century, the trend in other parts of the world is less encouraging (25). Cigarette consumption is increasing in many low and middle income countries as cigarette manufacturers have shifted much of their marketing, promotion, and production into these emerging economies. Smoking remains the leading cause of preventable illness and premature death in most parts of the world, killing approximately 6 million people every year (48). Especially in developing nations, cigarette use is still perceived as a rite of passage into adulthood and an ordinary and non-controversial behavior for adults, especially males (49).

The global effort to reduce the burden of tobacco use has been aided by the Framework Convention on Tobacco Control (FCTC), the first global health treaty, negotiated under the auspices of the World Health Organization (50). The FCTC has been ratified by more than 170 countries, though the U.S. has yet to join in. Ratification of the treaty obligates countries to implement a comprehensive set of policies including higher taxes, effective health warning labels, and smoke-free policies (50). The tobacco industry continues to work against efforts by governments to adopt policies that will effectively limit cigarette marketing and protect public health (51).

It is more critical than ever that the medical and public health community adopt evidence-based guidelines to ensure that governments implement the kinds of policies and programs that will be effective in reducing tobacco use. Interventions to reduce tobacco use will need to evolve in the future to reflect shifting public attitudes and innovations by the industry to adjust to a changing regulatory environment. Increasing attention should also be given to more imaginative "endgame" strategies that envision a world entirely free of tobacco (4, 46, 52). Cigarette smoking as we've known it had a historical beginning, and at some point will hopefully come to an end.

## **Acknowledgments**

**Financial Support:** KMC receives salary support from research funded by grants from the National Cancer Institute of the United States (P01 CA138389, P30 CA138313).

#### References

1. Brandt, A. The Cigarette Century: The Rise, Fall, and Deadly Persistence of the Product That Defined America. New York: Basic books; 2007.

- Sadd L. A half-century of polling on tobacco: most don't like smoking but tolerate it. The Public Perspective. 1998:1–4.
- 3. Feuer EJ, Levy DT, McCarthy WJ. The impact of the reduction in tobacco smoking on U.S. lung cancer mortality, 1975–2000. Risk Analysis. 2012; 32:S6–S13. [PubMed: 22882893]
- 4. Proctor, RN. Golden Holocaust: Origins of the Cigarette Catastrophe and the Case for Abolition. Berkeley, CA: University of California Press; 2011.
- Burgard, JW. Copy of Study of Cigarette Advertising. 1953. Retrieved February 1, 2002, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/tid/kmn99d00
- Roper, Elmo. A Study of People's Cigarette Smoking Habits and Attitudes. Aug. 1953 Retrieved August 27, 2009, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/ tid/twd56b00
- Blatnik, JA, Committee Chairperson. Twentieth Report. the Committee on Government Operations, Legal and Monetary Affairs Subcommittee; Feb 20. 1958 False and Misleading Advertising (filtertip cigarettes).
- 8. Federal Trade Commission. Report to Congress Pursuant to the Federal Cigarette Labeling and Advertising Act. Washington, DC: United States Federal Trade Commission; 1967.
- 9. Morris, Philip. Human Smoking Behavior. Retrieved September 17, 2009, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/tid/fgk76b00
- Johnston, M. Special Report No. 248: Market Potential of a Health Cigarette. Jun. 1966 Retrieved July 11, 2011, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/tid/ uly40i00
- 11. Pepples, EC. Industry Response to Cigarette/Health Controversy. Retrieved June 14, 2006, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/tid/lpz95a00
- Bing, RJ.; Davies, DF.; Dyer, RE.; Lilienfeld, AM.; Nelson, N.; Shimkin, MB.; Spain, DM.; Strong, FM. Report of Study Group on Smoking and Health. Mar 6. 1957 Retrieved February 1, 2002, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/tid/ bdl68e00
- Burney, LE. Excessive Cigarette Smoking. Jul 12. 1957 Retrieved April 28, 2011, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/tid/ofv08h00
- 14. Cummings KM, Brown A, O'Connor R. The cigarette controversy. Cancer Epidemiology Biomarkers & Prevention. 2007; 16:1070–6.
- 15. Cummings KM. Programs and policies to discourage the use of tobacco products. Oncogene. 2002; 21:7349–64. [PubMed: 12379878]
- 16. Warner KE. Effects of the antismoking campaign: an update. American Journal of Public Health. 1989; 79:144–51. [PubMed: 2913831]
- Giovino GA, Schooley MW, Zhu BP, Chrismon JH, Tomar SL, Peddicord JP, et al. Surveillance for Selected Tobacco-Use Behaviors - United States, 1900–1994. Centers for Disease Control and Prevention. CDC Surveillance Summaries, 1994. MMWR. 1994; 43(SS-3):1–50.
- Agaku I, King B, Dube SR. Current cigarette smoking among adults United States, 2011.
  MMWR. 2011; 61:889–94.
- Gfroerer J, Dube SR, King BA, Garrett BE, Babb S, McAfee T. Vital signs: Current cigarette smoking among adults aged > 18 years with mental illness – United States, 2009–2011. MWWR. 2013; 62:81–7.
- Orzechowski W, Walker RC. Tax Burden on Tobacco: Historical Compilation. Jun 13.2012 46 http://www.taxadmin.org/fta/tobacco/papers/Tax\_burden\_2011.pdf.

21. Pollay R. Exposure of US youth to cigarette television advertising in the 1960s. Tobacco Control. 1994; 3:130–3.

- 22. National Cancer Institute. The Role of the Media in Promoting and Reducing Tobacco Use. Tobacco Control Monograph No. 19. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; Jun. 2008 p. 11NIH Pub. No. 07-6242
- 23. Myers, ML.; Iscoe, C.; Jennings, C.; Lenox, W.; Minsky, E.; Sacks, A. Federal Trade Commission: Staff Report on the Cigarette Advertising Investigation. Washington, DC: Federal Trade Commission; Retrieved February 1, 2002, from Legacy Tobacco Documents Library, UCSF: http://legacy.library.ucsf.edu/tid/odh04f00
- Cummings KM, Fong GT, Borland R. Environmental influences on tobacco use: evidence from societal and community influences on tobacco use and dependence. Annual Review of Clinical Psychology. 2009; 5:433–58.
- 25. Paoletti L, Jardin B, Carpenter MJ, Cummings KM, Silvestri GA. Current status of tobacco policy and control. Journal of Thoracic Imaging. 2012; 24:213–9. [PubMed: 22847588]
- Sadd, L. Tobacco and Smoking. Aug 15. 2002 Retrieved December 19, 2012, from gpns: special report: www.gallup.com/poll/9910/obacco-smoking.aspxSadd2002
- 27. Cummings, KM. A Cigarette Century. Retrieved July 27, 2013 from Roswell Park Cancer Institute: http://tobaccotimeline.org/
- 28. American Nonsmokers' Rights Foundation. US. 100% Smoke-free Laws in Non-Hospitality Workplaces and Restaurants and Bars. Jul 8. 2013 Retrieved July 29, 2013 from ANR: http://www.no-smoke.org/goingsmokefree.php?id=519#ords
- 29. Gallup, Newport F. For first time, majority in US support public smoking ban. Jul 14. 2011 Retrieved December 19, 2012, from Gpns: http://www.gallup.com/sorry/FileNotFound.aspx?aspxerrorpath=/poll/148514/first-time-majority-supports-public-smoking-ban.asp
- Gilpin EA, Lee L, Pierce JP. Changes in population attitudes about where smoking should not be allowed: California versus the rest of the USA. Tobacco Control. 2004; 13:38–44. [PubMed: 14985593]
- 31. Siegel M, Albers AB, Cheng DM, Hamilton WL, Biener L. Local restaurant smoking regulations and the adolescent smoking initiation process. Archives of Pediatric and Adolescent Medicine. 2008; 162:477–83.
- Bauer JE, Hyland A, Li Q, Steger C, Cummings KM. Longitudinal assessment of the impact of smoke-free worksite policies on tobacco use. American Journal of Public Health. 2005; 95:1024– 9. [PubMed: 15914828]
- 33. United States Department of Health and Human Services. The Health Consequences of Smoking: Nicotine Addiction. A Report of the Surgeon General, 1988. Rockville, Maryland: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Health Promotion and Education, Office on Smoking and Health; 1988.
- 34. United States Department of Health and Human Services. Reducing Tobacco Use: A Report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention, and Health Promotion, Office on Smoking and Health; 2000.
- 35. Institute of Medicine. Ending the Tobacco Problem: A Blueprint for the Nation. Washington, DC: The National Academic Press; 2007.
- 36. Cummings KM, Hyland A. Impact of nicotine replacement therapy on smoking behavior. Annual Reviews of Public Health. 2005; 26:583–99.
- 37. Burns, DM.; Benowitz, NL. Risks Associated With Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Rockville: US Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute; 2001.
- 38. Bansal-Travers M, Hammond D, Smith P, Cummings P. The impact of cigarette pack design, descriptors, and warning labels on risk perception in the U.S. American Journal of Preventive Medicine. 2011; 40:674–82. [PubMed: 21565661]

39. Cummings KM, Hyland A, Bansal MA, Giovino GA. What do Marlboro Lights smokers know about low-tar cigarettes? Nicotine & Tobacco Research. 2004; 6 (Supplment 3):S323–32. [PubMed: 15799595]

- O'Connor RJ, Ashare RL, Cummings KM, Hawk LW Jr, Fix BV, Schmidt WC. College students' expectancies for light cigarettes and potential reduced exposure products. American Journal of Health Behavior. 2007; 31:402–10. [PubMed: 17511575]
- 41. Thun MJ, Carter BD, Feskanich D, Freedman ND, Prentice R, Lopez AD, Hargae P, Gapstur SM. 50-year trends in smoking-related mortality in the United States. New England Journal of Medicine. 2013; 368:351–64. [PubMed: 23343064]
- 42. Wayne GF, Connolly GN, Henningfield JE, Farone WA. Tobacco industry research and efforts to manipulate smoke particle size: implications for product regulation. Nicotine & Tobacco Research. 2008; 10:613–25. [PubMed: 18418784]
- 43. Keller TE, Ju TW, Ong M, Sung HY. The US national tobacco settlement: the effects of advertising and price changes on cigarette consumption. Applied Economics. 2004; 36:1623–9.
- 44. United States v. Philip Morris USA, Inc. et al. Case 1:99-cv-02496-GK, Document 5732, filed. Aug 17. 2006 http://www.gpo.gov/fdsys/granule/USCOURTS-dcd-1\_99-cv-02496/USCOURTS-dcd-1\_99-cv-02496-14/content-detail.html
- 45. Cummings KM. A promise is a promise. Tobacco Control. 2003; 12:117-8. [PubMed: 12773712]
- 46. Proctor R. Why Ban the Sale of Cigarettes? The Case for Abolition. Tobacco Control. 2013; 22:1–4. [PubMed: 23239401]
- 47. Farhham, A. E-cigarette sales to hit \$1 billion. ABC News. Jul 31. 2013 http://abcnews.go.com/Business/electronic-cigarette-sales-billion/storynew?id=19815486
- 48. World Health Organization. WHO Report on the Global Tobacco Epidemic. WHO Press; Geneva, Switzerland: 2013. http://www.who.int/tobacco/global\_report/2013/en/
- 49. Giovino GA, Mirza SA, Samet JM, Gupta PC, Jarvis MJ, Bhala N, et al. for The GATS Collaborative Group. Tobacco use in 3 billion individuals from 16 countries: an analysis of nationally representative cross-sectional household surveys. Lancet. 2012; 380:668–79. [PubMed: 22901888]
- 50. World Health Organization. WHO Framework Convention on Tobacco Control. Geneva, Switzerland: 2003. Available at: http://www.who.int/fctc/en [Accessed November 28, 2011.]
- 51. Doward, J. Revealed: tobacco giant's secret plans to see off plain cigarette packets. The Guardian. Retrieved July 27, 2013 from the guardian: http://www.theguardian.com/business/2013/jul/28/philip-morris-plain-packaging?CMP=twt\_gu
- 52. Smith EA, Warner KE. The Tobacco Endgame. Tobacco Control. 2013; 22(supplement 1):i3–i5. [PubMed: 23591502]