
Tobacco

**Lessons for addressing obesity
From the history of tobacco control**

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In the field of tobacco control, there has been a shift from primarily behavioral approaches toward policy approaches. What were the key events that facilitated this shift?

The attempt to reduce smoking has always involved a mix of behavioral and policy approaches. A more useful distinction differentiates education and persuasion, which dominated early tobacco control, from attempts to alter the environment in which smoking occurs. Increasing emphasis on policy measures has naturally accompanied the shift toward the latter. Restrictions on where people can smoke evolved out of frustration with the limited success achieved by education and persuasion, and tactical recognition that protecting the “innocent victim” — the nonsmoker assaulted by environmental tobacco smoke (ETS) — constituted a winning strategy.

Let me illustrate. Merely 11 days after release of the first Surgeon General's report in 1964,¹ the Federal Trade Commission proposed rules requiring warning labels on cigarette packages and ads. A Congressional law in 1965 preempted the FTC's action, mandating a modest “caution” placed on cigarette packs but omitting ads. Thus, policy was there at the beginning of the antismoking campaign. However, the very nature of that policy was an attempt to inform and educate, and implicitly to persuade people to avoid smoking. The (naïve) belief was that, informed of smoking's hazards, kids would not start and adults would quit. This was reflected in the early reliance on school health education to deter future generations from becoming smokers, and simple media messages to convince adults to quit — the hallmarks of the early campaign.

This inform/educate/persuade phase of the campaign lasted slightly less than a decade. This approach achieved some success — many highly educated smokers did quit — but the public health community viewed the overall response as a dismal failure. Annual adult per capita cigarette consumption declined only modestly during the decade following the first Surgeon General's report. Yet had pre-report patterns of increasing smoking persisted, per capita consumption would have risen steadily, becoming 20-30% higher than the figure actually realized in 1975.² Indeed, eventually adult per capita consumption would have leveled out at around 6000 cigarettes per year, compared with the peak level of 4200 attained the year before the Surgeon General's report. (For perspective, per capita consumption fell to 2000 two years ago.)

The inform/educate/persuade phase of the antismoking campaign ended, as it began, with a policy measure. In 1967, the Federal Communications Commission ruled that broadcasters had to donate airtime to the antismoking cause to balance the effect of pervasive cigarette ads. Lasting through 1970, the highly novel antismoking ads were associated with the first four-year decline in per capita consumption since the advent of the cigarette.³

As the first phase of the campaign drew to a close, recognition dawned that the nonsmoking message was failing to reach the least educated members of society. Strikingly, in the early 1960s the prevalence of smoking among college graduates did not differ much from that of Americans lacking high school degrees. By the mid-1970s, a gap of nearly 10 percentage points had opened up between the two groups, as the most highly educated quit and the least educated exhibited virtually no change in smoking prevalence. Today, fewer than 10% of college graduates smoke, while over 30% of the least educated continue to smoke.

In 1972, Surgeon General Jesse Steinfeld introduced the notion that cigarette smoke might damage the health of nonsmokers.⁴ In 1973, Arizona adopted the first modern-era state law restricting smoking in public places. Two years later, Minnesota adopted the first comprehensive state clean indoor air (CIA) law. Today, 45 states have CIA laws on the books, with many having tightened their restrictions over time.

The shift toward emphasizing the rights (and health) of nonsmokers defined the second and, in many ways, transforming phase of the antismoking campaign. In 1978, a tobacco-industry study concluded that the nonsmokers' rights movement constituted the industry's greatest threat.⁵ Savvy tobacco control activists understood the power of the nonsmokers' rights message and played it effectively in one state and community after another.

Underlying the shift toward phase two of the campaign was a palpable change of "tone". In the early years, the antismoking campaign had a "helpful," almost paternalistic feel to it: we, the educated, will help those who have yet to see the light. In the nonsmokers' right era, "we" had in large part given up hope of reaching "them," so the strategy became one of protecting ourselves from the behavior of the recalcitrant. CIA laws have succeeded in protecting nonsmokers from ETS.⁶ Research demonstrates as well that smoking declines among employees subject to smoking bans at work.⁷ The CIA era is experiencing a veritable renaissance today, with half a dozen states having banned smoking in all workplaces, including all restaurants and bars.

Throughout both phases of the campaign a variety of interventions have been at work. Raising cigarette prices, through tax increases, is widely regarded as the single most effective means of reducing smoking. It is particularly effective in discouraging smoking by children and the poor, the latter having the highest smoking rates today.⁸ The advent of a public position against smoking in the 1960s led to a spate of state tax increases from 1964-1972. Concerns about cigarette smuggling from low- to high-tax states reduced tax increases over the next decade. Beginning in the '80s, taxation picked up again, as it has again at the present time.

Smoking cessation programs and, more recently, pharmaceuticals have been a component of the behavioral intervention side of tobacco control for decades. Although smoking cessation treatment is clearly cost-effective — far more so than virtually everything done in medicine⁹ — evidence suggests that broader public health approaches, like media campaigns, are still more cost-effective.¹⁰ Each of these types of interventions has been a part of the tobacco control scene since its inception, each having intensified in recent years due to increased interest in quitting.

Space will not permit consideration of a myriad of other interventions. Several of them, including many directed at youth smoking (e.g., laws against sales to youth, school health education), have demonstrated little effectiveness to date.¹¹ Others, such as restrictions on advertising, likely have achieved less than their proponents might have expected.¹²

Finally, it is important to recognize the role of legal interventions. Though neither behavioral nor policy interventions, lawsuits, some now successful (most notably the state Medicaid suits), have themselves played a central role in transforming the smoking-and-health environment.

Today, the transformation of smoking from a socially desirable behavior to one deemed socially repugnant, though not complete, represents one of the more extraordinary chapters in American social history. Still, it is imperative to recognize that in some social circles, including many blue-collar workforces, smoking remains normative behavior. And while smoking has declined by half since 1964, the remaining half produces a toll of death and disability that trumps any other health behavior. It is remarkable, indeed, that the leading cause of preventable premature mortality is also, unarguably, the domain of the greatest public health success of the past half century. Quite literally millions of Americans have enjoyed an average of an additional 15 years of healthy life thanks to their antismoking campaign-induced decisions to quit smoking or not to start.

What specific research was crucial?

Tobacco control began as a result of original epidemiologic research published in the 1950s.^{13,14,15} In December 1952, *Reader's Digest* published an article entitled "Cancer by the Carton," based on this research.¹⁶ Immediately, per capita consumption dropped two consecutive years, the first and only time in the century other than during the Great Depression. The upward trend in per capita consumption resumed thereafter, the result in part of the tobacco industry's heavy marketing of new filtered cigarettes as "trapping" the dangerous components in smoke and letting the "flavor" through. (The filter of Kent, the most successful early brand, was made of asbestos.)

That epidemiologic research constituted the intellectual underpinnings of the antismoking campaign. Epidemiologic research on the health effects of ETS^{17,18} has created a rationale and powerful political tool for promoting CIA laws. Unlike the case of the original epidemiological studies, however, the ETS evidence *followed* the adoption of many CIA laws. Recall that the laws were adopted from the mid-1970s on. The first noteworthy scientific study relating ETS to lung cancer was published in 1981.¹⁹ Recent policy research showing that smoking bans in restaurants and bars do not decrease business or tourism has bolstered the case for statewide bans,^{20,21} as did earlier work demonstrating that workplace bans decreased smoking.⁷

Research on tobacco control policies has played a crucial role in the adoption of numerous policies. The most important case concerns the effects of cigarette taxation. Prior to the 1980s, the public health community viewed taxes as ineffectual, since smoking was addictive, and inherently undesirable. The need, they argued, was to appeal to smokers' intrinsic values, especially concern for their own health. Econometric research published in 1981²² and 1982²³ presented a compelling case that price increases deterred smoking, especially by children. A published "translation" of the somewhat esoteric econometric studies into comprehensible public health implications²⁴ was strategically distributed to every member of Congress the day before hearings on the sun-setting of an 8-cent per pack federal tax on cigarettes. The paper demonstrated that allowing the tax to sunset would cause hundreds of thousands of children to smoke. The analysis helped convince Congress to maintain the tax. Thereafter, with a substantial body of corroborating research, taxation became an essential element of tobacco control worldwide.

A second important domain of policy research concerns the effects of media counter-marketing campaigns. A number of early studies concluded that the Fairness Doctrine ads had been very effective in discouraging smoking.²⁵ Recent research on state media campaigns has also identified

significant impacts on smoking.²⁶ Early research on a new major national campaign, the truth campaign, has found significant impacts as well.²⁷ Still, the evidence on precisely what works in such campaigns, and how large and long the campaigns must be to achieve effectiveness, remains to be developed.

Some areas of policy have not benefited from research, in that solid research findings have failed to alter the course pursued by policy makers. Research finding little if any effect of laws restricting possession, use, and purchase of tobacco by minors (known as PUP laws) has not diminished legislators' fondness for such laws.²⁸ Similarly, the idea of school health education on tobacco continues to attract proponents, despite the evidence that, as implemented in schools with limited budgets and time, the programs do not exhibit lasting effects.¹¹

What policy (federal, state, local, or other) contributed significantly to achieving public health goals on this issue?

As noted above, taxation has almost certainly proven to be the single most effective policy in reducing cigarette smoking. It has the doing-good-while-doing-well feature of reducing smoking at the same time that it increases governmental revenues. This is a winning formula that is especially attractive because the public supports cigarette tax increases, especially when some of the revenues are earmarked for youth tobacco prevention.

While individual states will gain by increasing their cigarette taxes, and the federal government will as well, the relationship between the two is less harmonious. If the federal government raises its tax, the states lose money. Decreases in smoking attributable to a federal tax drain state revenues. As such, pressured by their Governors, Senators and Congressmen are reluctant to increase the federal tax (and have done so only rarely). The solution is to earmark a portion of new federal revenues to compensate the states, something easier said than done.

Clearly the CIA laws, at both the community and state level, have had a profound effect on smoking. They have reduced smoking, while achieving their principal objective of cleaning the indoor air. Perhaps more fundamentally, they have altered the acceptability of smoking in this country. (Of course, there is a bit of a chicken-and-egg problem here: norms had to change, at least somewhat, before adoption of the laws would become politically acceptable.)

Finally, the media campaigns seem to be playing an important role in changing the social environment too. The evidence on their contribution is less substantial than that related to taxation and CIA laws, but the preponderance of the evidence indicates that the campaigns constitute an important component of a comprehensive assault on tobacco.

Were there any false starts or dead-ends on either the research or policy fronts? Things that, with hindsight, you wish the movement could have avoided?

There have been a lot of initiatives that, with hindsight, likely represented an undesirable use of resources, including, as noted above, school health education PUP laws. Some interventions may

have been counterproductive, not just ineffective. Warning labels likely created a stir in their first inception. Subsequently, however, they provided the tobacco industry a shield to hide behind in lawsuits; smokers, the industry insisted, were warned on every pack they bought. New labels recently adopted in Canada, Brazil, and a few other countries, may reverse the negative contribution of labels, however. These new labels comprise 50% of the front and back of each package and include graphic illustrations of the toll of tobacco (e.g., diseased lungs).

I am not aware of large areas of research that have represented dead-ends, although of course many individual studies have failed to deliver. In part this reflects the paucity of research funding in this area. Indeed, much of the research generated in the past decade has resulted from the Foundation's seminal contribution to developing the field of tobacco control research.

Much of the tobacco control policy research has been quite innovative and useful, as described above. This is true even in "established" areas of research, where one might assume that more research would be unnecessary. Recent research on tax and price, for example, has enlightened the field about a wide variety of the subtle effects of price increases, such as continuing smokers switching to higher yield cigarettes to get their dose of nicotine from fewer cigarettes.²⁹ New research on the relationship between price and youth smoking probes whether higher prices deter initiation per se or, rather, discourage smoking among kids who are already "into" smoking.³⁰ Perhaps the biggest disappointment concerns research with important findings that the field of tobacco control has not incorporated into practice, described above.

Finally, one thing the movement definitely should have avoided was the internecine warfare within the tobacco control community over the so-called "Global Settlement" that preceded the Master Settlement Agreement between the states and the tobacco industry. With real resources and potentially powerful policies at stake, our coalition failed to coalesce. Dismally.³¹

What lessons can be applied to reducing and preventing obesity?

There are remarkable similarities, as well as differences, between the obesity situation today and the tobacco situation in the 1960s. I conclude with just a handful of thoughts:

- a) The single most important general lesson from the tobacco experience is that changes in the social environment are crucial to significantly and permanently alter the behavioral problem. In the case of tobacco, we removed tobacco ads from the airwaves in 1971 and from billboards in 1999. Increasingly, we have removed cigarette smoke from workplaces, restaurants, etc. In some jurisdictions, near-punitive taxes are placed on cigarettes. It is easier to be, and to become, a nonsmoker today than it was just a decade ago. It is vital to create an environment that is conducive to healthy behavior patterns. America today presents its citizens with an environment conducive to abusive eating and a sedentary lifestyle.
- b) However limited the effectiveness of the education/persuasion phase of the antismoking campaign, a case can be made that this was an essential first step to "ready" the country for stronger policy-oriented approaches. Bans on smoking in bars were completely inconceivable in

the 1960s (and '70s and '80s), just as is the notion of a substantial "fat tax" today. A period of national education and discussion about obesity may likewise be strategically necessary.

- c) Obesity, like smoking, is concentrated disproportionately among the poor and poorly educated. The "bad foods" excise tax notion deserves explicit attention, especially if it can be combined with a food subsidy program for the poor that facilitates purchase of "good foods," such as fresh produce. The tax would raise revenues to support a food subsidy program that likely could not be sold without a new revenue source. Further, the tax likely would discourage junk food eating more among the price-sensitive poor than among the rich. Subsidizing the purchase of fresh produce for the poor would allow substitution of now less expensive fruits and vegetables for now more expensive snack foods. The availability of "fresh produce food stamps" likely would increase the number of retail outlets, currently few, that sell fresh produce in the nation's inner cities. Politically, selling a "snack tax" may be far easier if revenues from it are designated to help the poor, especially poor children, to secure healthier diets. Surveys consistently find Americans especially supportive of cigarette taxes if the revenues are earmarked for programs designed to prevent youth smoking.
- d) The relationship between the food industry, policy makers, and the public health community must be carefully thought out. The likely approach is to seek collaboration. In the case of the food industry, or at least parts of it, this may work. This was precisely the approach adopted with the tobacco industry 40 years ago, however, to disastrous effect in subsequent decades. In 1964, the industry produced a voluntary code of advertising, thereafter ignored, that bought the industry time in averting restrictions on advertising. In 1964, the aggressive FTC agreed to permit the companies to develop their own warning labels, a notion that today would be laughable. Even today the industry tries to buy respectability through funding university scientists. The food industry is far more multi-faceted than the tobacco industry. It includes companies, or components of companies, dedicated to developing healthier foods for which there is a market demand (or the companies believe demand can be created). There may be ways to work with the industry, or segments of it, to seek solutions to the "social pollution" that dominates the environment today. The food industry may learn some lessons from the experience of the tobacco industry and truly want to avoid the latter's image, legal, and other problems. At the same time, the public health community should always retain a healthy skepticism about the industry's motivations.
- e) Using the media to sell healthy eating and an active lifestyle needs to be explored creatively. Good ideas must be supplemented with resources. Here, too, a "bad foods" tax could contribute. Even a modest tax could generate substantial resources for a variety of purposes.
- f) Sadly, there is no obvious analogy to the CIA laws to deal with obesity. Still, there may be useful lessons to be drawn from the tobacco case. The CIA laws have clearly changed the environment in a profound way. Interventions to "clean up" the environment in fast food restaurants might be a piece of the answer, such as large, conspicuously posted identification of the fat and caloric content of the items for sale in fast food restaurants.
- g) Finally, thought must be devoted to development of a community of funders to address the diverse research issues that the obesity problem raises. Research needs range from basic

biology to policy, as they have in tobacco control. And as in tobacco, the likely scenario is that far more ample resources will be available for the basic science research than for behavioral and policy research. Both have mattered in tobacco control; both need to be supported. As the stepchild of research, policy research is deserving of special attention.

In contemplating how society can most effectively and efficiently attack the obesity problem, the tobacco experience recommends a long view and an open and creative mind. 30 or 40 years ago, the notion of entire cities and states prohibiting smoking in virtually all public indoor environments would have been deemed ludicrous. The idea that taxes on cigarettes sold in New York City would exceed \$3.00 per pack would have been inconceivable. The concept that, relative to the size of the population, the cigarette market would have shrunk by half would have terrified the industry, and heartened the public health community beyond belief. The knowledge that, despite these changes, tobacco was still needlessly causing one fifth of all American deaths, and sickening over 8 million people, would have been utterly dismaying.

One hopes and even expects that the experiences reviewed at this meeting will contribute useful insights into how the epidemic of obesity can be controlled. At the same time, obesity will throw new and unanticipated curves at the public health community. It will be an interesting, and important, ride.

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