Tobacco Control Program Saves California Billions

By Karen Rowan

California’s tobacco control program reduced personal health care costs in the state by $86 billion over its first 15 years in existence, according to University of California at San Francisco researchers, in addition to saving the cost of the 3.6 billion packs of cigarettes that the program prevented from being smoked. The savings amounted to a nearly 50-fold return on the $1.8 billion spent by the program during that period, according to the study, which appeared in *PLoS Medicine* in August.

“At first, I thought, this [amount of money was] too big,” said study coauthor James Lightwood, Ph.D., assistant adjunct professor in the UCSF School of Pharmacy. “But the numbers held up.” The study examined the correlations between per capita cigarette consumption (using data from the *Tax Burden on Tobacco*, an annual industry report), per capita tobacco control expenditures (using data from the California Departments of Health Services and Education and from the Centers for Disease Control and Prevention), and all the money spent on health care expenses in California (as measured by health care providers). The researchers included data from 1980 to 2004 and compared the California data with those from 38 control states, which did not have major tobacco control programs prior to 2000 or cigarette taxes higher than 50 cents per pack.

By including all personal health care costs from California and the other states, the researchers controlled for common national trends such as changes in medical practice or demographic changes. They also accounted for many costs that are difficult to quantify individually, such as the medical costs of low birth weight, breast cancer, colorectal cancer, and dental services, Lightwood said. The researchers further analyzed the data to eliminate the chance that other factors—such as obesity rates or access to health care—contributed to calculated cost savings.

“We are extremely proud [of the tobacco control program],” said Bonnie Sorensen, M.D., chief deputy director of policy programs for the California Department of Public Health. By working to get smoking banned in public places and creating media campaigns, the program has changed the norms regarding smoking for both adults and youth, Sorensen said. Now that many indoor smoking bans have been implemented, the program will work to get smoking banned in outdoor places, such as beaches and parks.

In recent years, California has also helped other programs become more efficient, working with both the CDC and the American Cancer Society to disseminate information on best practices for quit lines and community outreach programs. Colorado, Indiana, and Nebraska are among the states that have incorporated California’s ideas into their efforts.

The finding is important because it is the first evidence of the economic effect of a tobacco control program on personal health costs, said Nancy Rigotti, M.D., a professor of medicine at Harvard and director of the tobacco research and treatment unit at Massachusetts General Hospital. After the advent of tobacco control programs, the earliest evidence of their effectiveness was data showing that the programs were changing behaviors: Fewer
people were smoking. Then, researchers showed that lung cancer and cardiovascular disease rates decreased. “As a physician, that was enough for me,” she said, “but when we’re trying to get money for more programs, it’s great to have the economic argument.”

California’s program is focused on changing social norms rather than on preventing youth from using tobacco, and the UCSF researchers argue that this is responsible for the rapid, large cost reductions. For youngsters, “the best advertisement for cigarettes is an adult smoking,” said Gregory Connolly, D.M.D., professor of public health at Harvard, who directed the Massachusetts Tobacco Control Program from 1992 to 2003. By focusing on changing societal views on smoking, the program affects youth by a trickle-down effect, he said.

Connolly said programs that focus on preventing kids from taking up smoking but don’t try to change the social norms have a weak effect. But it is easier and more politically correct to start programs that target kids than to start those that try to lower smoking rates among adults. Raising the price on cigarettes and banning smoking in public places are politically difficult, but these are the effective ways to change the norms of a large population and affect the behavior of individuals, said Connolly.

The Massachusetts program found that by focusing on adults, they laid the groundwork for influencing kids. Then, Connolly said, “you start to see the payoff with youth.” If smoking is allowed in public places and cigarettes are cheap, young adults will take up the habit, regardless of programs targeted at preventing them from doing so, he said, and programs that deal only with youth may turn cigarettes into forbidden fruit.

“Education programs in schools are very ineffective,” said Kenneth Warner, Ph.D., dean of the school of public health at the University of Michigan and director of the University of Michigan Tobacco Research Network. Warner explained that the education programs that do work are robust programs with the administrative resources to support knowledgeable personnel and provide booster activities (that repeat tobacco education every few years for students). But in reality, most health education programs are strapped for cash and don’t have the resources they need to be effective, he said.

“It’s okay to be paternalistic about kids, but not about adults,” Warner said, so the youth programs continue to be implemented in place of programs that target adults. Some programs also may feel that it’s their proper role to emphasize youth smoking prevention, he said. But even though school programs have short-term effects and kids’ attitudes toward smoking become more negative immediately after a program, 2 or 3 years later, attitudes are the same as those of students who never went through a program. Warner pointed out that some measures that are implemented to target adults, such as raising prices and enacting smoking bans, affect kids too.

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Tobacco control programs across the country are now facing funding shortages. The California program began in 1989, and the Massachusetts program launched in 1992, but most other state programs did not get under way until the 1998 Tobacco Master Settlement Agreement, which made $206 billion from tobacco companies available to states for smoking-related medical costs. But state legislators are not required to spend the money on tobacco control programs, and less than 5% of the settlement funds currently go to tobacco control, Connolly said. The hope is that “[this study] will wake up state legislators to allocate sufficient [Master Settlement Agreement] funding to tobacco control programs.”

The current economic climate may exacerbate the funding problem. When states have financial crises, money for these programs gets cut, said Steven Schroeder, M.D., a professor of health and health care at UCSF, who was not involved with the study. If there were cuts in funding for breast cancer screening awareness or other such programs, there would be an outcry, but this doesn’t happen when antismoking programs are cut, even though smoking is the single most preventable cause of death and disease, he said.

Legislators and others have often claimed that smoking cessation programs aren’t cost effective, but now there is a substantial body of evidence showing the key factors that make the programs work, Schroeder said. “Raising prices with taxes, having smoke-free areas, and implementing programs to help people quit” are the best ways to curb smoking, he said. Countermarketing campaigns, which use paid media to appeal to would-be smokers, also work, to a lesser extent.

One caveat to the UCSF findings is that there may be costs associated with the interaction between smoking and other health habits, such as a poor diet. If, for example, the effects of a poor diet and the effects of smoking interact and can damage health further than either factor could alone, the study does not take this into account, meaning that the true savings could be even higher. “If you get rid of smoking, you get rid of the interaction,” Lightwood said. His team would need more data to distinguish the effects of each.

The highly controversial question that remains unanswerable, Warner said, is what economic effect smoking has on society as a whole—does it cost or save money? “There is no question that smokers incur costs, but they don’t live to be that old,” he said, and the social security burden in this country would increase if people didn’t smoke.

The tobacco industry also argues that smokers, by buying cigarettes and supporting their multi-billion dollar companies, are essential to the economy. Warner said, “We’re now trying to respond to this with our own economic argument.”

© Oxford University Press 2008. DOI: 10.1093/jnci/djn376