

Senate Budget Subcommittee #3: Health & Human Services

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Public Health Protections in a Free Market

Informational Hearing Background Paper

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Summary

As a protector of the public's health, California utilizes laws, regulations, and other public policies designed to protect the public's health and safety by targeting individual or private sector behaviors that present health or safety hazards to the population.¹ These behaviors, often referred to as externalities, include actions such as emitting air pollution, addressed by setting and enforcing air quality standards.

Legal and public policy tools to address these externalities and protect the public's health include incentives, taxation, regulation, and zoning laws. For example, California's Tobacco Control Program (funded by a cigarette tax) has had a powerful impact on reducing adult and youth smoking rates, incidence of lung cancer, and medical care costs in the state.

The top three leading attributable causes of death are tobacco, poor diet and physical inactivity, and alcohol consumption. These preventable behaviors and exposures also lead to millions of Californians living with diseases and injuries and are largely a result of imperfect market conditions that do not account for the true costs of consumption to society. Public policy proposals to address these imperfect market conditions, such as the sugar-sweetened beverage tax, have the potential to significantly improve public health.

Moreover, given that government, and ultimately the taxpayer, is responsible for financing a significant portion of health care costs associated with diseases and injury, through public programs such as Medicare and Medicaid, the need to address these public health concerns is even more important.

The purpose of this hearing is to discuss the role of government in protecting the public's health in a free market and consider when government is the appropriate agent to intervene for the public's health and safety.

Public Health Economics

Public health economics is the study of the economic role of government in public health, particularly, in addressing externalities and supplying public goods.² Externalities occur when consumers or producers do not bear the full costs of their consumption/production (negative externalities) or when there are benefits from consumption/production that go beyond the individual consumer/producer (positive externalities). A public good is a good or service that does not lend itself to market allocation because it costs nothing and it is generally difficult or impossible to exclude individuals from consuming it.

In a free market, individuals work, play, and consume what they want without restrictions. Sellers and buyers exchange goods and services at a price determined by supply and demand. Under ideal conditions, the entire economy functions without any central control or direction from the government.

However, perfect market conditions are useful for modeling and simulations, but do not occur in the real world.³ Market conditions are manipulated, for example, by uninformed consumers. Information about the short- and long-term costs and benefits of consuming or producing some products is often limited and individuals make choices they later regret or the full costs of their consumption is often not borne by those making the consumption.

Mass media and other public education campaigns can provide information that can alter consumers' perceptions of the costs and benefits they received from consuming a given product, resulting in different consumption choices. For example, cigarette smoking in the U.S. rose rapidly in the first half of the twentieth century. It was not until the 1950s that strong evidence linking cigarette smoking to lung cancer first appeared in scientific literature. Consequently, individuals made choices to smoke without full information about the health risks (and associated health costs) from smoking.⁴

Similarly, negative externalities in production, such as air and water pollution from emissions and discharges that can cause various health consequences, are costs to society that are not reflected in the costs paid by producers.

These imperfect market conditions can justify government intervention to protect the public's health. Some legal interventions are more controversial than others and illustrate the challenge of balancing public goods and individual freedoms due to varying norms, expectations, and values that may inform both public opinion and decision-making by lawmakers in different jurisdictions.

Legal and Public Policy Tools to Protect the Public's Health

Federal, state, and local governments have various public policy interventions and tools that can be used to address imperfect market conditions and protect the public's health. These include:⁵

- taxation, incentives, and spending (e.g., cigarette and other “sin” taxes and allocation of the tax to combat the problem, may include pricing policies and financial incentives);
- altering the informational environment (e.g., food or drug labeling, and disclosure of health information);
- altering the built/physical environment (e.g., zoning, toxic waste);
- altering the natural environment (e.g., clean water, air);
- direct regulation (e.g., seat belts, helmets, gun safety device requirements, drinking water fluoridation, iodized salt; licensure of medical care providers and facilities);
- indirect regulation (e.g., tort litigation in tobacco); and
- deregulation (e.g., distribution of sterile injection equipment).

These tools can address market failures by changing the relative costs and benefits that influence the decisions consumers and producers make. Public policies can address the true price of a product, which includes not just the monetary cost of the product but other costs associated with obtaining and using the product.

Policies that increase the full price of unhealthy behaviors or reduce the full price of healthier behaviors have the potential to significantly improve public health.

Successful Public Policies that Have Protected and Improved the Public's Health

Examples of successful public policies that have been proven effective and of high value in addressing major causes of death, disease, and disability include the Tobacco Control Program and California's seat belt law.

Tobacco Control Program. The California Tobacco Control Program has had a powerful impact on reducing adult and youth smoking rates, incidence of lung cancer, and medical care costs in the state. In California, between 1989 and 2004, \$1.8 billion was spent on the Tobacco Control Program, and \$86 billion was saved in personal health care expenditures alone (and 3.6 billion fewer packs of cigarettes were bought).⁶

The Tobacco Control Program is funded with Proposition 99 funds. Proposition 99, the California Tobacco Health Protection Act of 1988, was approved by voters in November 1988. This initiative increased the state cigarette tax by 25 cents per pack and earmarked new revenues for programs to reduce smoking and to support tobacco-related research, among other programs.

Seat Belt Law. In 1986, California became one of the first states in the country to require individuals to wear seat belts in an automobile. According to the National Highway Traffic Safety Administration, the 2007 seat belt use rate (94.6 percent) in California resulted in a total cost savings of \$8.9 billion and 1,791 lives saved.

Public Health Concerns that Merit Government Intervention

According to the California Department of Public Health, almost half of all deaths that occurred in the United States in 2000 can be attributed to a limited number of largely preventable behaviors and exposures. The top three leading attributable causes of death are tobacco, poor diet and physical inactivity, and alcohol consumption.

These preventable behaviors and exposures also lead to millions of Californians living with diseases and injuries. Chronic disease (e.g., heart disease, cancer, diabetes, chronic respiratory disease, and hypertension) accounts for 80 percent of health care costs in California.

Government Bears Costs For Public Health Externalities. These preventable diseases and injuries are largely a result of imperfect market conditions that do not account for the true costs of consumption to society. Moreover, given that government, and ultimately the taxpayer, is responsible for financing a significant portion of health care costs associated with diseases and injury, through public programs such as Medicare and Medicaid, the need to address these public health concerns is even greater.

Obesity. For example, the dramatic increase in the prevalence of obesity appears to be attributable to environmental conditions that indirectly discourage physical activity and directly encourage the consumption of greater quantities of low-nutrient foods.⁷ Consequently, a clear economic rationale exists for public policy to correct the market failures caused by externalities related to obesity.

Additionally, obesity has been shown to promote many chronic diseases, including type 2 diabetes, cardiovascular disease, several types of cancer (endometrial, postmenopausal breast, kidney, and colon cancer,) musculoskeletal disorders, sleep apnea, and gallbladder disease.⁸

The economic costs of obesity, overweight, and physical inactivity are estimated to exceed \$28 billion annually in California.⁹ The percentage of deaths attributed to poor diet and physical inactivity increased 17 percent from 1990 to 2000 and is expected to

surpass tobacco as the leading cause of death in the near future. In 1984, 40 percent of Californians were overweight or obese; in 1995, 50 percent were overweight or obese; and in 2010, almost 60 percent were overweight or obese.

Additionally, Medicaid enrolls a more obese population and incurs greater obesity-related costs.¹⁰ In California, it is estimated that \$1.7 billion in Medi-Cal expenditures were related to obesity in 2003.

Nationwide, \$550 billion could be saved between 2012 and 2030 if the obesity rate stayed the same or decreased.¹¹

Public Policy Proposals to Address Public Health Concerns

As discussed earlier, there are various tools that can be used to address public health concerns. Research suggests that the following types of intervention could have the biggest impact addressing public health concerns.

“Sin” Taxes. When it comes to public health laws that target the demand side of the market, economists emphasize the concept of “full price” as the mechanism through which these policies influence health-related behaviors and their consequences.¹²

Behaviors such as smoking, alcoholism, poor nutrition, and inadequate physical inactivity contribute significantly to the burden of disease and the cost of its treatment. Research indicates that these behaviors are amenable to changes (increases) in taxes on tobacco, alcohol, sugary beverages, and fatty foods. Additionally, extensive economic research clearly demonstrates that higher taxes and prices lead to significant improvements in public health by reducing the use of harmful products.

These types of taxes attempt to recover the related public cost of an activity, increased health care costs, not covered by the private cost of that activity. Research¹³ indicates that:

- **Alcohol Tax** – Doubling the tax on alcohol would reduce alcohol-related mortality by about 35 percent, traffic deaths by 11 percent, sexually transmitted diseases by 6 percent, violence by 2 percent, and crime in general by 1.4 percent.
- **Cigarette Tax** – A ten percent increase in cigarette prices generally reduces consumption by four percent. A reduction in the number of people who smoke or are exposed to secondhand smoke would have budgetary effects on a range of health care programs, including Medicaid and Medicare, as well as the private health insurance market.
- **Sugar-Sweetened Beverage Tax** – A 10 percent increase in the price of soda could result in a 10 to 12 percent decrease in consumption.¹⁴ A reduction in the

consumption of sugar-sweetened beverages decreases the risk of obesity, diabetes, and heart disease.¹⁵

In addition to the resulting reduction of consumption of these products because of the increased price of the product, the revenue generated by these taxes can be used for public education campaigns and prevention programs to discourage behaviors and lead to further reductions in consumption.

Built Environment. From a public health perspective, built environment refers to physical environments that are designed with health and wellness as integral parts of the communities. This type of policy and land-use planning addresses the market failure of imperfect information as it disseminates information on the health impact of various land-use planning decisions and also stimulates the increase in supply of environments and communities that promote healthier eating and increased activity.

Research has indicated that the way neighborhoods are created can affect both the physical activity and mental health of the communities' residents.¹⁶ Studies have shown that built environments that were expressly designed to improve physical activity are linked to higher rates of physical activity, which in turn, positively affects health.¹⁷

Access to healthy food is also an important component of the built environment. A higher density of convenience stores has been associated with obesity in children.¹⁸ In contrast, improved access to community supermarkets and farmer's markets is correlated with a lower incidence of overweight individuals.¹⁹

Conclusion

The public health consequences that result from market failures are enormous. These market failures create a clear economic rationale for governments to intervene through laws, regulations, and other policies to improve public health. Economic theory suggests which types of policies are likely to be effective in addressing market failures and in improving public health.

From a state budget perspective, the need to address these concerns is particularly important since the state, and ultimately the taxpayer, is responsible for a significant portion of health care costs associated with preventable diseases and injury, through public programs such as Medicare and Medicaid.

¹ IOM (Institute of Medicine). 2011. "For the Public's Health: Revitalizing Law and Policy to Meet New Challenges". Washington, DC: The National Academies Press.

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- ⁵ IOM (Institute of Medicine). 2011. “For the Public’s Health: Revitalizing Law and Policy to Meet New Challenges”. Washington, DC: The National Academies Press.
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- ¹⁰ Ibid
- ¹¹ Ibid
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- ¹⁹ Tamanna Rahman, Rachel Cushing, Richard Jackson, “Contributions of Built Environment to Childhood Obesity,” *Mt. Sinai Journal of Medicine*, 2011, 78: 49–57.