

Compliance checks for tobacco

Public Health & Prevention: Population-level policies

Literature review updated June 2016.

As part of WSIPP's research approach to identifying evidence-based programs and policies, WSIPP determines "what works" (and what does not work) to improve outcomes using an approach called meta-analysis. For detail on our methods, see our [Technical Documentation](#). At this time, WSIPP has not yet calculated benefits and costs for this topic.

Program Description: Checking and providing feedback to outlets on their compliance with minimum age laws is intended to reduce the retail supply of tobacco to youth. Studies in this analysis included a range of consequences for being caught selling tobacco to minors (warnings, fines, and threat of license revocation). One of five studies in this analysis also included a reward (congratulatory note) for compliance with minimum age laws. Compliance check campaigns typically include retailer education and media coverage to enhance retailers' perception of enforcement. Studies included in this analysis range from short-term interventions of 1-2 waves of compliance checks over several months to longer-term interventions with multiple compliance checks over a 1-2 year period. Most interventions were implemented in the mid-1990's, paralleling implementation of state and federal tobacco control policies.

Meta-Analysis of Program Effects

Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect size and standard error			Unadjusted effect size (random effects model)	
			ES	SE	Age	ES	p-value
Smoking before end of high school	1	3002	0.088	0.161	15	0.088	0.586
Tobacco sales to minors	7	586	-0.526	0.212	15	-1.321	0.003

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our [Technical Documentation](#).

Citations Used in the Meta-Analysis

- Chapman, S., King, M., Andrews, B., McKay, E., Markham, P., & Woodward, S. (1994). Effects of publicity and a warning letter on illegal cigarette sales to minors. *Australian Journal of Public Health*, 18(1), 39-42.
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- Gemson, D.H., Moats, H.L., Watkins, B.X., Ganz, M.L., Robinson, S., & Heaton, E. (1998). Laying down the law: Reducing illegal tobacco sales to minors in central Harlem. *American Journal of Public Health, 88*(6), 936-939.
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