Comprehensive Tobacco Control Programs: Surveillance and Evaluation

Best practices for comprehensive Tobacco Control programs recommend that **10%** of program funds be used for surveillance and evaluation.

Good Data Tell the Story

Good data are essential for public health programs to understand the scope of a problem, target interventions, make decisions, and demonstrate impact.[1,2,3] Whether measuring the state's youth tobacco use rate or evaluating a new intervention in a community, surveillance and evaluation provide foundational data for strong, comprehensive tobacco control programs.

Core Tobacco Control Data and Successful Surveillance

Comprehensive tobacco control programs measure short-term, intermediate, and long-term progress around:

1. Preventing initiation among youth and young adults.
2. Promoting quitting among adults and youth.
3. Eliminating exposure to secondhand smoke and aerosol.
4. Identifying communities with the highest tobacco use rates and eliminating tobacco-related disease where it is highest.

Programs don't need to start from scratch; they can find ways to integrate tobacco-related questions into broader public health surveillance efforts. For example, state programs integrate tobacco-related questions onto other surveys, and can invest in the tobacco behaviors modules in CDC's Behavioral Risk Factor Surveillance System and Youth Risk Behavior Surveillance System and state Youth Tobacco Survey.

Evaluating Comprehensive Tobacco Control Programs

Process evaluations should take place throughout the lifecycle of a program to determine how well a program is implemented.[2]

Surveillance and Evaluation

Surveillance and Evaluation are core public health functions.

Surveillance measures attitudes, behaviors, and health outcomes (e.g., disease, death) over time.

Evaluation assesses a program's implementation and effectiveness over time.

Both are key for publicly funded programs to demonstrate their effectiveness, improve efficiency, and for citizens to hold programs accountable.

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[1] Adapted from: Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs. Atlanta, GA: 2014. Evidence-Based Guides for States | Smoking and Tobacco Use | CDC

[2] MacDonald G, Starr G, Schooley M, Yee SL, Klimowski K, Turner K. Introduction to Program Evaluation for Comprehensive Tobacco Control Programs. Atlanta (GA): Centers for Disease Control and Prevention; 2001.

[3] MacDonald G. Criteria for Selection of High-Performing Indicators: A Checklist to Inform Monitoring and Evaluation. Indicator_checklist.pdf (betterevaluation.org).

Comprehensive state programs may need to temporarily invest more in surveillance and evaluation after major policy changes, such as implementation of a smokefree law, to really understand health impacts.

Outcome evaluations help programs determine if they have achieved their goals and are anchored in health behavior change theory.[1,2] Both types of evaluation are important for tobacco control programs.[4]

New Opportunities in Surveillance

Understanding a Rapidly Changing Tobacco Product Market: The tobacco industry continues to introduce new tobacco products, flavors, and technologies to the marketplace, and markets them in new ways (such as via social media).[5] Tobacco control programs can use data to better understand these shifts, such as retail-based surveys.[6]

Understanding Rapidly Changing Tobacco Use Patterns: Increasing prevalence of nondaily or light smoking, as well as use of emerging products like nicotine pouches, makes it all the more important for tobacco control programs to get timely surveillance data to inform interventions.4, Experienced program staff know how to help surveillance systems evolve.

Leveraging New Technologies: Skilled public health practitioners, including biostatisticians, epidemiologists, and health scientists, can identify the best ways to use new technologies to obtain high-quality data.4 This could include using online panel surveys to broaden sample sizes.[8]

New Opportunities in Evaluation

Using Evaluation Indicators Specific to Tobacco Control: Unique tobacco metrics can help programs understand their short-term impacts, such as increased knowledge of the dangers of tobacco use, reduced experimentation with tobacco products, or indoor air quality.[3,9]

Using Qualitative and Quantitative Data: Collecting both quantitative and qualitative data can provide public health practitioners with a more robust picture of a complex program. Qualitative data can include conducting focus groups or interviews, storytelling, or youth panels.[4]

Rooting Community Engagement in Evaluation: Involving the community in program evaluation allows programs to see and understand the real impact of their interventions, especially on communities most directed effected. This can also enhance a program's relationship with communities, creating feedback loops and added accountability.[4,12]

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[4] Centers for Disease Control and Prevention. Developing an Effective Evaluation Report. developing_evaluation_report.pdf.

[5] U.S. Department of Health and Human Services. Eliminating Tobacco-Related Disease and Death: Addressing Disparities: A Report of the Surgeon General. Atlanta (GA): Centers for Disease Control and Prevention; 2024.

[6] Seaman EL, et al. Different Times Call for Different Measures: Using Retail Sales to Monitor the Tobacco Product Landscape. American Journal of Preventive Medicine 2022 Sep;63(3):e99-e102. doi: 10.1016/j.amepre.2022.03.028. Epub 2022 May 20. PMID: 35599174.

[7] Farrelly MC, Chaloupka FJ, Berg CJ, Emery SL, Henriksen L, Ling P, Leischow SJ, Luke DA, Kegler MC, Zhu SH, Ginexi EM. Taking Stock of Tobacco Control Program and Policy Science and Impact in the United States. Journal of Addictive Behavior Therapy 2017;1(2):8. Epub 2017 Sep 15. PMID: 30198028; PMCID: PMC6124688.

[8] American Association for Public Opinion Research. Data Quality Metrics for Online Samples: Considerations for Study Design and Analysis. Task-Force-Report-FINAL.pdf (aapor.org). Accessed December 2025.

[9] Fulmer E, et al. Evaluating Comprehensive State Tobacco Prevention and Control Programs Using an Outcome Indicator Framework. Health Promotion Practice. 2018;20(2):214-222. doi:10.1177/1524839918760557

[10] Leal IM, et al. Adapting and Evaluating Implementation of a Tobacco-Free Workplace Program in Behavioral Health Centers. American Journal of Health Behavior 2020;44(6):820-839. doi:10.5993/AJHB.44.6.7

[11] Community Toolbox. Evaluating Community Programs and Initiatives: Chapter 36: Section 6: Participatory Evaluation. Available from: Chapter 36. Introduction to Evaluation | Section 6. Participatory Evaluation | Main Section | Community Tool Box (ku.edu).

[12] Wallerstein N, et al. Engage for Equity: A Long-Term Study of Community-Based Participatory Research and Community-Engaged Research Practices and Outcomes. Health Education & Behavior: The Official Publication of the Society for Public Health Education. 2020;47(3):380-390. doi:10.1177/1090198119897075

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