
Foreword

This monograph, like so many others in the National Cancer Institute's (NCI's) Tobacco Control Monograph series, is an important document. At a time when "Big Science" is being supported to advance knowledge of society's most pressing biomedical and public health problems, scientists are also being challenged to demonstrate what has been accomplished for the investment made. There are few guides as to how to evaluate large-scale science. This is one of them.

The American Stop Smoking Intervention Study for Cancer Prevention (ASSIST) was the first "demonstration" project that put into practice the ultimate phase of NCI's Five Phases of Cancer Control Research* advanced by Peter Greenwald (NCI's Director of the Division of Cancer Prevention and Control) and Joseph W. Cullen (Deputy Director of the same division) in 1984. The ASSIST program followed the orderly and sequential progression of tobacco control research in the earlier four phases from public education in the 1960s, to individual-level interventions, to community-level and then population-level interventions in the 1970s and 1980s. The Community Intervention Trial for Smoking Cessation (COMMIT; 1986–92), which immediately preceded ASSIST, was a model for the application of a randomized controlled trial to community research. ASSIST was the next logical step and a serious federal investment designed to apply the evidence gained from COMMIT and the large body of other previous research to policy interventions in 17 states. However, at ASSIST's outset, no evaluation was planned. Only after ASSIST was in progress did the need for some way to assess its impact become apparent. This monograph is a testament to the ingenuity and perseverance of the evaluation team that took on that challenge and saw the evaluation to its successful completion. Coincidentally, like the number of states that had ASSIST contracts, this NCI monograph on the evaluation of ASSIST is number 17 in the Tobacco Control Monograph series.

The evaluation process is completely described in this monograph. It required the development of an overall design strategy that took into account the separate and unplanned impacts of other state-based initiatives supported by the Robert Wood Johnson Foundation and the Centers for Disease Control and Prevention (chapter 1). It required the development of metrics that assessed the power of state efforts in tobacco control as well as the countervailing efforts of the tobacco industry to negate these policy initiatives. The Strength of Tobacco Control Index (SoTC) was developed to answer this need after careful study of what information was available and reliable enough to be included in such an index (chapter 2). The evaluators also included metrics that captured changes in state and local clean indoor air laws (chapter 3) and developed metrics to repeatedly assess the initial and intermediate effects of the interventions (chapter 4). Finally, the evaluation took into account the differences among states in their tobacco

*Greenwald, P. G., and J. W. Cullen. 1984. The scientific approach to cancer control. *CA-A Cancer Journal for Clinicians* 34 (6): 330–31.

growing and production practices due to concerns about the influence of regional commercial interests on receptivity to the ASSIST program (chapters 5 and 6).

All of these approaches to evaluation were novel and required a substantial amount of creativity on the part of the evaluation team and their technical advisors. At the time, the structure and implementation of the evaluation strategy were truly challenging, and painstaking effort was invested in testing and validation. In fact, the evaluation evolved over time. This process of evolution is covered as well as two aspects of the evaluation, the database of newspaper print media coverage (chapter 7) and the study of tobacco industry counter-measures (chapter 8), which did not figure in the final statistical analysis. The inclusion of these aspects in the monograph reflects the thoroughness of the team efforts to report on all aspects of this enormous undertaking, even the false starts.

The need for evaluation of other large-scale NCI-supported cancer research initiatives is now well recognized. These initiatives include the Transdisciplinary Tobacco Use Research Centers (TTURCs), the Centers for Excellence in Cancer Communication, and the Centers for Population Health and Health Disparities. None of these are state-based initiatives, yet each is a large and complex transdisciplinary research enterprise that has required a major public investment. The ASSIST evaluation stands at the vanguard of these efforts, and the reader will learn much about the critical role of such assessments in moving research into practice, in this case into practice against the nation's number one cause of premature death and disability.

Robert A. Hiatt, M.D., Ph.D.
Director of Population Sciences and Deputy Director
UCSF Comprehensive Cancer Center
Professor, Epidemiology and Biostatistics
University of California, San Francisco