
Contents

Chapter 1. The ASSIST Evaluation Project: An Overview	1
Introduction.....	4
The ASSIST Evaluation.....	13
Summary.....	24
Conclusions.....	26
References	26
Chapter 2. The Strength of Tobacco Control Index.....	31
Introduction.....	33
Development of the Strength of Tobacco Control Index.....	34
Collection, Analysis, and Validation of SoTC Data	40
Results of SoTC	44
Use of the SoTC to Evaluate Individual State Programs	49
Summary.....	54
Conclusions.....	54
References	86
Chapter 3. Measuring Policy and Legislative Changes	87
Introduction.....	89
State and Local Government Action for Tobacco Use Prevention and Control	90
The Value of Monitoring Policy and Legislative Changes.....	91
Methods for Rating the Comprehensiveness of Tobacco Control Laws	93
State and State+Local Rating Results	100
Summary.....	104
Conclusions.....	105
References	106
Chapter 4. Initial Outcomes Index.....	111
Introduction.....	113
Tobacco Use Outcome Measures	114
Defining and Selecting Initial Outcomes	116
Initial Outcomes Selected for the ASSIST Evaluation.....	119
The IOI for Policy.....	129
Summary.....	135
Conclusions.....	137
References	138

Chapter 5. State Facilitating Conditions and Barriers to Implementation of Tobacco Control Programs	141
Introduction.....	143
Overview of Influences.....	144
State Conditions Selected for the ASSIST Evaluation	145
Data Sources.....	149
Other Potential Covariates	151
Summary.....	155
Conclusions.....	156
References	158
 Chapter 6. Measuring the Impact of Tobacco on State Economies.....	 163
Introduction.....	165
Background.....	166
Studies on the Economic Impact of Tobacco	171
Measuring the Economic Impact of Tobacco for ASSIST	174
State Data and Trends.....	175
Summary.....	181
Conclusions.....	182
References	182
 Chapter 7. The ASSIST Newspaper Tracking System	 185
Introduction.....	187
The Challenge of Measuring the Effect of Media Interventions	189
Tracking the Articles.....	190
Trend Analyses	195
Summary.....	201
Conclusions.....	204
References	211
 Chapter 8. Evaluating Tobacco Industry Tactics as a Counterforce to ASSIST ...	 213
Introduction.....	215
Expert-based Conceptual Map of Industry Tactics	217
Review of the Published Literature on Tobacco Industry Tactics	224
Review of Tobacco Industry Documents.....	236
Tobacco Industry Tactics: An Evaluation Challenge.....	254
Summary.....	255
Conclusions.....	256
References	257

Chapter 9. Final Outcomes: Analytical Methods and Results	265
Introduction.....	269
Overall Considerations for Analysis.....	272
Adult Smoking Prevalence.....	274
Per Capita Cigarette Consumption.....	276
Primary Results.....	279
Secondary Results (SoTC and IOI Analyses)	279
Summary.....	289
Conclusions.....	292
References	302
Chapter 10. Cost-effectiveness of ASSIST.....	305
Introduction.....	307
A Cost-effectiveness Analysis: The Basic Approach	308
Cost-effectiveness: ASSIST.....	310
Summary.....	322
Conclusions.....	323
References	323
Chapter 11. The ASSIST Evaluation: Contributions to Evaluation of Complex Public Health Initiatives.....	325
Introduction.....	328
Challenges to Evaluating ASSIST	328
Response to Evaluation Challenges	329
Key Findings of the ASSIST Evaluation	331
What Do These Results Mean?.....	332
The Legacy of the ASSIST Evaluation.....	334
The Future of Tobacco Control	336
Using the ASSIST Evaluation Approach for Other Public Health Initiatives.....	338
Summary.....	339
Conclusions.....	340
References	344
Index.....	351
Case Study	
Case Study 7.1. Editorials Promote a Stronger Youth Access Law in North Carolina	201

Tables

Table 1.1. Comparison of COMMIT and ASSIST	12
Table 1.2. Key Constructs and Variables Initially Proposed for the ASSIST Evaluation.....	19
Table 1.3. Research Questions Guiding the ASSIST Evaluation	21
Table 1.4. Final Constructs and Variables Used for the ASSIST Evaluation	25
Table 2.1. The Constructs, Domains, and Measures of the Strength of Tobacco Control Index	38
Table 2.2. Standardized Strength of Tobacco Control Index and Construct Scores, 1999–2000, by State, Sorted by SoTC Scores	45
Table 2.3. Correlation of Legislative Scores (1999) with SoTC Scores (1999)	48
Table 2.4. Correlation of Tobacco Use Prevalence (2000) with SoTC Scores (1999)	48
Table 2.5. Inputs: Resources and Capacity, Sorted by Funds.....	50
Table 2.6. Components of the Efforts Construct, Sorted by Efforts Score	52
Table 2.E.1. Within-method Correlation Analysis of Domain-level Strength of Tobacco Control Variables.....	79
Table 2.E.2. Within-method Correlation Analysis among Three Constructs and Overall Strength of Tobacco Control for Full Model	80
Table 2.E.3. Within-method Correlation Analysis among Three Constructs and Overall Strength of Tobacco Control for Reduced Model	80
Table 2.E.4. Amount of Variability Explained by First Three Factor Loadings in Principal Components Analysis	81
Table 3.1. Target Criteria Rated with 4 Points for Items in the Youth Access Policy Area	94
Table 3.2. Target Criteria Rated with 4 Points for Items in the Clean Indoor Air Policy Area	95
Table 3.3. Summary Scores for Youth Access Legislation, All States, 1993–99	100
Table 3.4. Summary Scores for State Clean Indoor Air by Preemption Score Adjustment and Year, All States, 1993–99	101
Table 3.5. State+Local Clean Indoor Air Summary Scores by Year, 1993–98.....	103
Table 3.6. State+Local Summary Scores for Clean Indoor Air for ASSIST and Non-ASSIST States, 1993–98	103
Table 4.1. Real Price of Cigarettes, 1992–99	121
Table 4.2. Legislative Score Including Preemption and Local Adjustment	124
Table 4.3. Percentage of Indoor Workers with Smoke-free Workplaces.....	127
Table 4.4. Correlations among Initial Outcomes in 1992–93 and 1998–99	129
Table 4.5. Initial Outcomes Index	131
Table 4.6. Correlation of Initial Outcomes with Final Outcomes and Change in Initial Outcomes with Change in Final Outcomes.....	133
Table 5.1. Variables Included in the ASSIST Evaluation Analysis.....	146
Table 5.2. Per Capita Funding (\$/Person) for Tobacco Control in Each State, by Year	154
Table 6.1. Percentages of Gross State Product from Tobacco Growing and Manufacturing	177

Table 7.1. Examples of Key Words for Search Strategy.....	192
Table 7.2. Definitions of Coded Variables	194
Table 7.3. Examples of Tobacco Topics	194
Table 7.4. Average Rate Variables for Each Year Analyzed (District of Columbia Excluded)	199
Table 8.1. Clusters and Statements in Descending Order, by Average Importance Rating.....	221
Table 8.2. Lobbying and Legislative Strategy	226
Table 8.3. Legal and Economic Intimidation and Creating the Illusion of Support	228
Table 8.4. Usurping the Agenda	228
Table 8.5. Harassment	228
Table 8.6. Undermining Science	230
Table 8.7. Media Manipulation and Public Relations.....	231
Table 8.8. Industry Tactics to Oppose Specific Public Health Initiatives.....	232
Table 8.9. Tobacco Industry Behavior at State and Local Levels.....	232
Table 9.1. Baseline Characteristics of ASSIST and Non-ASSIST States.....	270
Table 9.2. Covariates at Individual and State Levels	275
Table 9.3. Results of Regression Analysis of Smoking Prevalence for ASSIST Status, by Sex and Age	277
Table 9.4. Adjusted Differences in per Capita Cigarette Consumption between ASSIST and Non-ASSIST States during the Intervention Period	281
Table 9.5. IOI Analyses of the Impact of SoTC, as a Main Effect, on IOI and the Components of IOI.....	282
Table 9.6. Results from Regression Analysis of Smoking Prevalence for Strength of Tobacco Control	285
Table 9.7. Results from Regression Analysis of Smoking Prevalence for Initial Outcomes Index.....	285
Table 9.8. Results from Regression Analysis of per Capita Cigarette Consumption for Strength of Tobacco Control	286
Table 9.9. Results from Regression Analysis of per Capita Cigarette Consumption for Interactions of Strength of Tobacco Control and ASSIST Status	287
Table 9.10. Results from Regression Analysis of Temporal Pattern of per Capita Cigarette Consumption for Strength of Tobacco Control.....	288
Table 9.11. Results from Regression Analysis of per Capita Cigarette Consumption for Initial Outcomes Index.....	288
Table 9.12. Results from Regression Analysis of per Capita Cigarette Consumption for Interactions of Change in Initial Outcomes Index and Its Components with ASSIST Status	289
Table 10.1. ASSIST Total State Expenditures.....	311
Table 10.2. ASSIST per Capita Expenditures (Adult Population, 18 Years Old and Older)	312
Table 10.3. Life-years Gained Attributable to ASSIST: Women	313
Table 10.4. Cost-effectiveness with Various Recidivism Rates	313
Table 10.5. Cost-effectiveness with Various Changes in Women's Prevalence Rates	314
Table 10.6. Fraction of Lifetime Smoker Quits Attributable to ASSIST	314

Figures

Figure 1.1. Trends over Time in Tobacco Control Projects and Their Evaluation	6
Figure 1.2. NCI's Five Phases of Cancer Control Research.....	7
Figure 1.3. The ASSIST Evaluation Model.....	18
Figure 1.4. ASSIST Evaluation Timeline	18
Figure 1.5. Final Conceptual Framework Used for ASSIST Evaluation.....	24
Figure 2.1. Heuristic Map of Components Proposed for Strength of Tobacco Control Index	37
Figure 2.2. Strength of Tobacco Control Scores by State	46
Figure 2.3. Resources Construct Scores by State	46
Figure 2.4. Efforts Construct Scores by State	47
Figure 2.5. Capacity Construct Scores by State.....	47
Figure 2.6. Change in Tobacco Control Funding (in Dollars), 1991–98	51
Figure 2.E.1. Factor Analysis for Full Model.....	81
Figure 2.E.2. Strength of Tobacco Control—Full Model	83
Figure 2.E.3. Strength of Tobacco Control—Reduced Model	84
Figure 2.F.1. Basic Conceptual Framework	85
Figure 3.1. Mean Youth Access Summary Scores by Year and Preemption Status	101
Figure 3.2. Mean Clean Indoor Air Summary Scores by Year and Preemption Status.....	102
Figure 4.1. Real Price of Cigarettes Versus Adult Smoking Prevalence, 1992–93	122
Figure 4.2. Real Price of Cigarettes Versus per Capita Cigarette Consumption.....	123
Figure 4.3. Legislative Score Versus Adult Smoking Prevalence	125
Figure 4.4. Legislative Score Versus per Capita Cigarette Consumption	126
Figure 4.5. Workplace Smoking Ban Versus Adult Smoking Prevalence	128
Figure 4.6. Workplace Smoking Ban Versus per Capita Cigarette Consumption	128
Figure 4.7. Initial Outcomes Index Versus Adult Smoking Prevalence.....	132
Figure 4.8. Initial Outcomes Index Versus per Capita Cigarette Consumption.....	132
Figure 4.9. Change in Initial Outcomes Index Versus Change in Adult Smoking Prevalence.....	134
Figure 4.10. Change in Initial Outcomes Index Versus Change in per Capita Cigarette Consumption	134
Figure 4.11. Trends in per Capita Cigarette Consumption for States in Each Tertile Group of Tobacco Control Initial Outcomes Index	135
Figure 5.1. Interactions of Forces Acting to Influence Tobacco Use	144
Figure 6.1. Tobacco Leaf Production.....	167
Figure 6.2. Tobacco Leaf Production and Cigarette Production, Consumption, and Exports	169
Figure 6.3. Tobacco Leaf Production and Exports, and Imports' Share in U.S. Use	169
Figure 6.4. Tobacco Farming and Manufacturing as Share of Gross State Product, 2000	176
Figure 6.5. Tobacco Farming and Manufacturing as Share of Gross Domestic Product, United States	178
Figure 6.6. Tobacco Farming and Manufacturing as Share of Gross State Product, North Carolina	178

Figure 6.7. Tobacco Growing and Manufacturing as Share of Gross State Product, Kentucky.....	179
Figure 6.8. Tobacco Farming and Manufacturing as Share of Gross State Product, Virginia	179
Figure 6.9. Tobacco Farming and Manufacturing as Share of Gross State Product, Georgia.....	180
Figure 6.10. Tobacco Farming and Manufacturing as Share of Gross State Product, South Carolina	180
Figure 6.11. Tobacco Farming and Manufacturing as Share of Gross State Product, Tennessee.....	181
Figure 7.1. Article Type by Year, 1993–2000.....	197
Figure 7.2. Policy Topic by Year, 1993–2000.....	197
Figure 8.1. Point-cluster Map Showing the Multidimensional Scaling Arrangement of the 88 Statements with the Eight-cluster Solution Superimposed	223
Figure 8.2. Concept Map Showing Clusters and Relative Importance Ratings	224
Figure 8.3. Experts' Interpretation of the Industry Tactics Concept Map	225
Figure 9.1. Bimonthly per Capita Cigarette Consumption in ASSIST and Non-ASSIST States	278
Figure 9.2. Crude Difference in Bimonthly per Capita Consumption of Cigarettes between ASSIST and Non-ASSIST States.....	280
Figure 9.3. Yearly Initial Outcomes Index Average for ASSIST and Non-ASSIST States.....	284
Figure 9.B.1. Examples of States with Nonlinear Trends in Bimonthly per Capita Cigarette Consumption after 1993.....	297
Figure 9.B.2. Random Effects Analysis with 95% Confidence Interval of Difference in per Capita Cigarette Consumption (Non-ASSIST Minus ASSIST).....	298

Appendices

Appendix 2.A. Assessment Rating of Variables	56
Appendix 2.B. Key Elements of Strength of Tobacco Control Efforts	57
Appendix 2.C. Agency Worksheet	61
Appendix 2.D. Survey 2	65
Appendix 2.E. Validation of the Strength of Tobacco Control Model	77
Appendix 2.F. Construct Validation of Strength of Tobacco Control.....	85
Appendix 5.A. Baseline Values for Variables Considered in the ASSIST Evaluation Analyses.....	157
Appendix 7.A. Coding Topics.....	205
Appendix 7.B. Search Strategies	207
Appendix 9.A. Issues Related to Selection of Methods for Analyzing Smoking Prevalence	293
Appendix 9.B. Approaches to Analyzing per Capita Cigarette Consumption Data	296

Contents

Appendix 9.C. Outcome Measures: Per Capita Cigarette Consumption (Packs/Month) and Adult (18 Years and Older) Smoking Prevalence (%)	301
Appendix 11.A. Crude Prevalence, Initial Outcomes Index, and Strength of Tobacco Control Index, by State.....	342