## Contents

### Chapter 1. The ASSIST Evaluation Project: An Overview
- Introduction .................................................. 1
- The ASSIST Evaluation ........................................ 4
- Summary .......................................................... 13
- Conclusions ....................................................... 24
- References ......................................................... 26

### Chapter 2. The Strength of Tobacco Control Index
- Introduction ...................................................... 31
- Development of the Strength of Tobacco Control Index ... 33
- Collection, Analysis, and Validation of SoTC Data ........ 34
- Results of SoTC ................................................. 40
- Use of the SoTC to Evaluate Individual State Programs ... 44
- Summary .......................................................... 49
- Conclusions ....................................................... 54
- References ......................................................... 86

### Chapter 3. Measuring Policy and Legislative Changes
- Introduction ...................................................... 87
- State and Local Government Action for Tobacco Use Prevention and Control ... 89
- The Value of Monitoring Policy and Legislative Changes ... 90
- Methods for Rating the Comprehensiveness of Tobacco Control Laws ....... 91
- State and State+Local Rating Results ....................... 93
- Summary .......................................................... 100
- Conclusions ....................................................... 105
- References ......................................................... 106

### Chapter 4. Initial Outcomes Index
- Introduction ...................................................... 111
- Tobacco Use Outcome Measures .......................... 113
- Defining and Selecting Initial Outcomes .................. 114
- Initial Outcomes Selected for the ASSIST Evaluation .... 116
- The IOI for Policy ................................................. 119
- Summary .......................................................... 129
- Conclusions ....................................................... 135
- References ......................................................... 138
### Chapter 5. State Facilitating Conditions and Barriers to Implementation of Tobacco Control Programs

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>143</td>
</tr>
<tr>
<td>Overview of Influences</td>
<td>144</td>
</tr>
<tr>
<td>State Conditions Selected for the ASSIST Evaluation</td>
<td>145</td>
</tr>
<tr>
<td>Data Sources</td>
<td>149</td>
</tr>
<tr>
<td>Other Potential Covariates</td>
<td>151</td>
</tr>
<tr>
<td>Summary</td>
<td>155</td>
</tr>
<tr>
<td>Conclusions</td>
<td>156</td>
</tr>
<tr>
<td>References</td>
<td>158</td>
</tr>
</tbody>
</table>

### Chapter 6. Measuring the Impact of Tobacco on State Economies

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>165</td>
</tr>
<tr>
<td>Background</td>
<td>166</td>
</tr>
<tr>
<td>Studies on the Economic Impact of Tobacco</td>
<td>171</td>
</tr>
<tr>
<td>Measuring the Economic Impact of Tobacco for ASSIST</td>
<td>174</td>
</tr>
<tr>
<td>State Data and Trends</td>
<td>175</td>
</tr>
<tr>
<td>Summary</td>
<td>181</td>
</tr>
<tr>
<td>Conclusions</td>
<td>182</td>
</tr>
<tr>
<td>References</td>
<td>182</td>
</tr>
</tbody>
</table>

### Chapter 7. The ASSIST Newspaper Tracking System

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>187</td>
</tr>
<tr>
<td>The Challenge of Measuring the Effect of Media Interventions</td>
<td>189</td>
</tr>
<tr>
<td>Tracking the Articles</td>
<td>190</td>
</tr>
<tr>
<td>Trend Analyses</td>
<td>195</td>
</tr>
<tr>
<td>Summary</td>
<td>201</td>
</tr>
<tr>
<td>Conclusions</td>
<td>204</td>
</tr>
<tr>
<td>References</td>
<td>211</td>
</tr>
</tbody>
</table>

### Chapter 8. Evaluating Tobacco Industry Tactics as a Counterforce to ASSIST

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>215</td>
</tr>
<tr>
<td>Expert-based Conceptual Map of Industry Tactics</td>
<td>217</td>
</tr>
<tr>
<td>Review of the Published Literature on Tobacco Industry Tactics</td>
<td>224</td>
</tr>
<tr>
<td>Review of Tobacco Industry Documents</td>
<td>236</td>
</tr>
<tr>
<td>Tobacco Industry Tactics: An Evaluation Challenge</td>
<td>254</td>
</tr>
<tr>
<td>Summary</td>
<td>255</td>
</tr>
<tr>
<td>Conclusions</td>
<td>256</td>
</tr>
<tr>
<td>References</td>
<td>257</td>
</tr>
</tbody>
</table>
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
  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

1. **Comparison of COMMIT and ASSIST**
   - Table 1.1: Comparison of COMMIT and ASSIST
   - Page: 12

2. **Key Constructs and Variables Initially Proposed for the ASSIST Evaluation**
   - Table 1.2: Key Constructs and Variables Initially Proposed for the ASSIST Evaluation
   - Page: 19

3. **Research Questions Guiding the ASSIST Evaluation**
   - Table 1.3: Research Questions Guiding the ASSIST Evaluation
   - Page: 21

4. **Final Constructs and Variables Used for the ASSIST Evaluation**
   - Table 1.4: Final Constructs and Variables Used for the ASSIST Evaluation
   - Page: 25

5. **The Constructs, Domains, and Measures of the Strength of Tobacco Control Index**
   - Table 2.1: The Constructs, Domains, and Measures of the Strength of Tobacco Control Index
   - Page: 38

   - Table 2.2: Standardized Strength of Tobacco Control Index and Construct Scores, 1999–2000, by State, Sorted by SoTC Scores
   - Page: 45

7. **Correlation of Legislative Scores (1999) with SoTC Scores (1999)**
   - Table 2.3: Correlation of Legislative Scores (1999) with SoTC Scores (1999)
   - Page: 48

   - Table 2.4: Correlation of Tobacco Use Prevalence (2000) with SoTC Scores (1999)
   - Page: 48

9. **Inputs: Resources and Capacity, Sorted by Funds**
   - Table 2.5: Inputs: Resources and Capacity, Sorted by Funds
   - Page: 50

10. **Components of the Efforts Construct, Sorted by Efforts Score**
    - Table 2.6: Components of the Efforts Construct, Sorted by Efforts Score
    - Page: 52

11. **Correlation of Legislative Scores (1999) with SoTC Scores (1999)**
    - Table 2.7: Correlation of Legislative Scores (1999) with SoTC Scores (1999)
    - Page: 79

    - Table 2.8: Correlation of Tobacco Use Prevalence (2000) with SoTC Scores (1999)
    - Page: 80

13. **Components Analysis**
    - Table 2.9: Components Analysis among Three Constructs and Overall Strength of Tobacco Control for Full Model
    - Page: 81

14. **Target Criteria Rated with 4 Points for Items in the Youth Access Policy Area**
    - Table 3.1: Target Criteria Rated with 4 Points for Items in the Youth Access Policy Area
    - Page: 94

15. **Target Criteria Rated with 4 Points for Items in the Clean Indoor Air Policy Area**
    - Table 3.2: Target Criteria Rated with 4 Points for Items in the Clean Indoor Air Policy Area
    - Page: 95

16. **Summary Scores for Youth Access Legislation, All States, 1993–99**
    - Table 3.3: Summary Scores for Youth Access Legislation, All States, 1993–99
    - Page: 100

17. **Summary Scores for State Clean Indoor Air by Preemption Score Adjustment and Year, All States, 1993–99**
    - Table 3.4: Summary Scores for State Clean Indoor Air by Preemption Score Adjustment and Year, All States, 1993–99
    - Page: 101

18. **State+Local Clean Indoor Air Summary Scores by Year, 1993–98**
    - Table 3.5: State+Local Clean Indoor Air Summary Scores by Year, 1993–98
    - Page: 103

19. **State+Local Summary Scores for Clean Indoor Air for ASSIST and Non-ASSIST States, 1993–98**
    - Table 3.6: State+Local Summary Scores for Clean Indoor Air for ASSIST and Non-ASSIST States, 1993–98
    - Page: 103

    - Table 4.1: Real Price of Cigarettes, 1992–99
    - Page: 121

21. **Legislative Score Including Preemption and Local Adjustment**
    - Table 4.2: Legislative Score Including Preemption and Local Adjustment
    - Page: 124

22. **Percentage of Indoor Workers with Smoke-free Workplaces**
    - Table 4.3: Percentage of Indoor Workers with Smoke-free Workplaces
    - Page: 127

    - Table 4.4: Correlations among Initial Outcomes in 1992–93 and 1998–99
    - Page: 129

24. **Initial Outcomes Index**
    - Table 4.5: Initial Outcomes Index
    - Page: 131

25. **Correlation of Initial Outcomes with Final Outcomes and Change in Initial Outcomes with Change in Final Outcomes**
    - Table 4.6: Correlation of Initial Outcomes with Final Outcomes and Change in Initial Outcomes with Change in Final Outcomes
    - Page: 133

26. **Variables Included in the ASSIST Evaluation Analysis**
    - Table 5.1: Variables Included in the ASSIST Evaluation Analysis
    - Page: 146

27. **Per Capita Funding ($/Person) for Tobacco Control in Each State, by Year**
    - Table 5.2: Per Capita Funding ($/Person) for Tobacco Control in Each State, by Year
    - Page: 154

28. **Percentages of Gross State Product from Tobacco Growing and Manufacturing**
    - Table 6.1: Percentages of Gross State Product from Tobacco Growing and Manufacturing
    - Page: 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
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