

October 2003

Comprehensive Evaluation Plan for the New York Tobacco Control Program

Final Report

Prepared for

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*RTI International is a trade name of Research Triangle Institute.

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EXECUTIVE SUMMARY

The New York State Department of Health (NYSDOH) contracted with RTI International (RTI) to independently evaluate its Tobacco Control Program (TCP). The contract was competitively procured in 2002 and fully executed on March 31, 2003. The RTI evaluation plan describes program evaluation activities for the remainder of the 5-year contract period. Specific evaluation activities will be incorporated in contract modifications on a yearly basis. The following is a summary of the findings and recommendations from the comprehensive evaluation plan.

ES.1 PROGRAM GOALS AND CHALLENGES TO THE EVALUATION

The TCP's comprehensive approach to reducing tobacco addresses four main programmatic goals: (1) eliminate exposure to secondhand smoke (SHS), (2) decrease the social acceptability of tobacco use, (3) promote cessation from tobacco use, and (4) prevent the initiation of tobacco use among youth and young adults. The other two goals focus on building and maintaining an effective tobacco control infrastructure and contributing to the science of tobacco control. The TCP's comprehensive strategy focuses on six evidence-based intervention strategies to achieve the four programmatic goals:

- Smoking bans and restrictions
- Increasing the unit price of tobacco products
- Provider reminders alone or with provider education
- Multicomponent telephone support systems (Quitlines)
- Reducing patient costs for cessation services
- Multicomponent mass media campaigns with interventions

A key challenge of evaluating such a multifaceted program is to understand which program components are most effective. Although a growing body of research supports multifaceted, comprehensive tobacco control program approaches, many challenges remain to understand which mix of activities, and at what funding level, is optimal to reduce the health and economic burden of tobacco use. The complexity of the problem stems from a number of factors:

- Many program activities begin simultaneously once a program is funded, making it difficult to relate changes in program goals to any one activity.
- Some activities have a clear impact, whereas the impact of others is more diffuse.
- Synergies exist across program activities that add to the complexity of the program.
- Program success is affected by contextual factors.

Contextual factors, such as sociodemographics, culture, tobacco policies (e.g., the recent law to curb the transport of cigarettes from other states to New York residents; fire safe cigarette regulations that are in development), and tobacco marketing, can vary by community, media

market, and/or region of the state. These factors may all have important influences on tobacco use and are important to measure if we want to understand the program's impact on stated goals above and beyond these influences.

A related challenge for the evaluation of such a complex program is that many of the TCP activities have all started at roughly the same time. As a result, it is difficult to isolate the impact of individual program components on outcomes. Finally, it may well be prohibitively expensive and burdensome to program staff to collect all the data that would be needed for an ideal evaluation design. In developing an evaluation approach, we account for data limitations, resource constraints, and stakeholder priorities.

ES.2 OVERVIEW OF EVALUATION APPROACH

We propose a comprehensive evaluation approach to the TCP. We believe this approach is essential to determining whether and to what extent TCP intervention strategies are effective in reducing tobacco use and its health and economic consequences. What's more, it is essential to gathering valuable data that can inform the continuing improvement and high-quality performance management of the program. Using the CDC's "Framework for Program Evaluation" (1999) as a set of organizing principles and approaches for our work, the evaluation is intended to be sensitive to all phases of the TCP interventions—from initial design, through implementation, to shorter-term and longer-term outcomes. We want to understand how activities are being conducted and how successful they are in meeting their objectives. In addition, because it is often not possible to see changes in ultimate program goals in the short-term, it is necessary to identify upstream indicators of program impact.

We have used several basic principles, seeking to ensure that the evaluation design is *parsimonious* (e.g., by using existing data where they help to answer evaluation questions), that it *triangulates* on TCP process and outcome measures (e.g., through a variety of data collection strategies), and that it is *comprehensive* (e.g., by addressing each goal and each logical step towards the ultimate program outcomes). Our approach (1) includes various theory-based short-term and intermediate outcomes likely to ensue from TCP interventions in the early years, (2) addresses social environmental factors (e.g., pro-tobacco advertising, media messages about tobacco) likely to affect program outcomes, and (3) takes full advantage of existing data sources (e.g., Adult Tobacco Survey [ATS], Behavioral Risk Factor Surveillance System [BRFSS], Youth Tobacco Survey [YTS]) and builds on these to create a strategy for gathering all data needed to measure program activities from inception through various stages of outcomes.

CDC's evaluation framework outlines a number of steps in developing and implementing an evaluation. The first step involves describing the program. To accomplish this, RTI reviewed the TCP's strategic plan, met with TCP staff in-person and by telephone, and reviewed relevant program documents. Based on this understanding, we mapped programmatic goals and objectives to program activities and outputs to short-, intermediate-, and long-term indicators. This

information, summarized in evaluation planning matrices for each of the four programmatic goals, outlined all of the required data to implement a comprehensive evaluation plan. These matrices provided a roadmap for evaluation activities and permitted an assessment of the required data for evaluation.

ES.3 EXISTING SURVEILLANCE AND MONITORING SYSTEMS

The TCP has access to a rich set of surveillance and monitoring systems that include various surveys of adults (ATS, BRFSS, Current Population Survey [CPS]), youth (YTS), and other special populations (Pregnancy Risk Assessment Monitoring System [PRAMS]), supplemented by local program monitoring systems (e.g., Quitline, community data reporting). The existing surveys provide a wealth of data on individual tobacco use behaviors and more limited data on self-reported exposure to program activities. Ideally, the data collection instruments should provide the following:

- Sensitive measures of exposure to program activities for all program goals:
 - ✓ Measures of potential exposure to the program
 - ✓ Measures of overall awareness
 - ✓ Measures of awareness of specific activities
- Timely feedback to program coordinators:
 - ✓ Information on exposure to program activities to various audiences
 - ✓ Information on awareness of exposure to the program
 - ✓ Information on reactions to program activities
- Sensitive measures of program effects, which typically require the following:
 - ✓ Sensitive measures of expected short-term and intermediate program effects (knowledge, beliefs, attitudes, and intentions)
 - ✓ Sensitive measures of expected longer-term program effects (smoking behaviors)
- Rigorous control for confounding factors, including the following:
 - ✓ Concurrent interventions (such as increases in the cost of tobacco, school-based and community antitobacco programs)
 - ✓ Differences in target audience background (e.g., age, gender, race/ethnicity, school performance, parental smoking)
 - ✓ Differences in context of individuals (e.g., control for observed and unobserved characteristics of schools, communities)
 - ✓ Secular trends

Clearly, the needs of evaluation are extensive and despite the wealth of available data, additional surveillance and monitoring systems are needed to fully implement a comprehensive evaluation. The following section summarizes our recommended enhancements.

ES.4 RECOMMENDED ENHANCEMENTS TO THE EXISTING SURVEILLANCE AND PROGRAM MONITORING SYSTEMS

The following summaries provide a brief overview of each of our recommended enhancements.

ES.4.1 Conduct Health Care Provider Survey

To evaluate many of the objectives under Goal 3, it is necessary to have information about health care providers' (HCPs') knowledge, attitudes, intentions, and practices as they relate to addressing tobacco. Because there is currently no statewide system to gather this information, we recommend a representative survey of HCPs in New York in Years 2 and 4 of the evaluation with a targeted response rate of 65 to 70 percent. Working with the NYSDOH, we will explore methods to survey a broad range of HCPs, including physicians, nurses, dentists, dental hygienists, nurse practitioners, physician assistants, and mental health and substance abuse counselors. We will work collaboratively to develop appropriate contact lists for these various types of health care providers. There is also interest in identifying methods to identify HCPs who serve Medicaid beneficiaries. Another possible data limitation that we do not currently address is gathering data on health care provider organizations (HCPOs). While we can ask physicians to report on HCPO policies, recommended practices, training, and other standard procedures for treating tobacco dependence, we currently do not ask HCPOs' administrators. This is another potential complementary strategy.

ES.4.2 Track News Media Coverage

In considering the importance of media advocacy in the TCP's strategic plan, especially with respect to Goals 1 and 2, it is important to have data sources with which to evaluate the effectiveness of these efforts. The evaluation of ASSIST pioneered efforts to track news media coverage of tobacco issues and was successful in demonstrating that coverage of tobacco issues was higher in ASSIST sites compared with non-ASSIST sites. In addition, a recent article by Finnegan and Viswanath (2002) demonstrated that efforts to draw public attention to cardiovascular health issues by concerned organizations and institutions were associated with the increase in coverage of heart disease in the 1980s.

Building off the methods and data used in the ASSIST evaluation, we propose tracking and coding coverage of tobacco control issues in New York State. Fortunately, Burrelle's Clipping Service that was used in the ASSIST evaluation has nine regional services, including one that focuses exclusively on New York State. Their services include coverage of the following publications:

- 95 daily newspapers
- 874 nondaily newspapers
- Hundreds of magazines and Internet sites
- Local television and radio news
- Network television and radio news
- Cable news and public affairs programming

By coding and analyzing these data over time, we can assess the impact of efforts to change social norms by raising awareness and stimulating discussion of tobacco issues in the news media.

ES.4.3 Measure Pro-Tobacco Advertising and Promotions in the Retail Environment

Goal 2 stresses the importance of reducing the amount of pro-tobacco promotions and advertising and calls for Community Partners to perform local assessments of the extent of such activities. In order to have sufficient and accurate data for the evaluation, we recommend a two-pronged strategy: (1) develop a protocol for Community Partners that is complemented by a training manual and possibly a coordinated statewide training; and (2) validate the Community Partner assessments with periodic independent assessments in selected locations, such as the proposed case study sites. The assessments could be conducted by either the evaluation team or by an independent organization that specializes in measurement in retail environments. There are multiple methods used to capture cigarette advertising and promotions in retail outlets that can be adopted to fit our needs.

In addition to retail advertising, it may be worthwhile to explore the feasibility of tracking event sponsorship by tobacco companies. Depending on the capacity of Community Partners to engage in such an assessment, we will develop a detailed protocol and training material (if needed) based on the methods used in the literature as well as drawing on additional input from experts in this area.

ES.4.4 Enhance Program Monitoring and Activity Reporting

Although the intermediate and long-term outcomes associated with the TCP are crucial to understanding the impact of the TCP and Community Partner activities, process or formative measures are also a critical component of the evaluation as they provide feedback to the program and guidance for strengthening and focusing activities. While assisting program development and design, these measures can also serve as short-term indicators of the progress being made towards the ultimate program goals. To use formative information, data must be collected from the Community Partners on a regular and ongoing basis. The data collection tool must be detailed and specific as well as user-friendly to ensure continued, reliable data.

We recommend building on the existing Community Partner Monthly Report system to collect more specific data from the Community Partners on their activities and collaborations (e.g., number of meetings between Community Partners and local collaborators, materials developed). To collect more detailed information, we recommend providing specific guidelines and probes for the information that should be included in the description of activities. RTI has used a number of strategies in the past to improve data gathering, such as developing an Access data system accessible through a secure web site that people can easily input information to and generate reports from. Various options will be discussed to develop an appropriate, accepted method, and training will be provided on the use of the new system.

ES.4.5 Conduct Community Sentinel Site Study

The overall success of the TCP will, to a large extent, depend on the success of local Community Partners. TCP is relying on their Community Partners to ensure implementation of policies, such as the Clean Indoor Air Act (CIAA). Community-level efforts are extremely complex and have often not been sufficiently monitored and studied in a manner that allows for a complete understanding of how they affect program outcomes. We intend to collect qualitative data to gather details on the context within which program activities are working or not, in order to help facilitate ongoing program improvement. Qualitative data provide rich and detailed descriptions of people and situations and a depth of understanding of process usually unattainable through other evaluation methods. The Community Partner efforts and other community-level influences should be monitored, such as local school initiatives, regional cessation centers, media and pro-tobacco advertising, and other efforts within the community that could impact program goals.

Our proposed community-based study of the New York State Community Partnerships is threefold and will allow us to develop a thorough understanding of the functioning of the Community Partnerships and their contribution to the outcomes associated with the TCP. This design would be cross-cutting by allowing us to answer evaluation questions for each goal of the TCP.

The first of the three methods, enhancing the current Community Partner Reports, has already been discussed in Recommendation 4. The second component of the community-based data collection will be a sentinel site study in six selected communities to provide an in-depth assessment of local program activities. This is a comprehensive research strategy used to examine the working relationship between the program, organization, and the community. Site selection will be determined in collaboration with the TCP to ensure diversity in geographic location, community demographics, experience in tobacco control, and available resources within the community. This diversity will help ensure that lessons learned from these communities can be translated into ongoing program improvements for the entire state. We will conduct semiannual site visits to each site to collect data, conduct interviews with Community Partner members, stakeholders, and other individuals and community members to complement data collected from the Community Partner Reports. Results will shed light on how best to implement community-based efforts as well as how to successfully incorporate these local initiative to most effectively address the statewide priorities.

Finally, the third method in the community sentinel site study involves incorporating community-based measures into statewide quantitative studies. Our community research team will develop community-based measures that are appropriate for inclusion in statewide surveys (e.g., ATS, YTS, Youth Telephone Survey, and Physician Survey) where feasible and appropriate. For example, we can develop appropriate questions to gauge adult awareness of the Community Partners' activities.

ES.4.6 Develop a Youth Telephone Survey with Longitudinal Follow-ups

While the biannual YTS provides valuable information on youth tobacco attitudes, intentions, use, and influences, a youth telephone survey with longitudinal follow-up seeks to resolve two main

limitations: the inability to draw strong causal conclusions about program impact and relative inflexibility due to the length and timing of administration. Since it generally takes substantial amounts of time before tobacco control interventions achieve detectable behavioral effects, it is important to chart short- and intermediate-term indicators of program impact. By having a youth telephone survey with longitudinal follow-up, we are able to gather complete and sensitive measures of program exposures such as awareness of antismoking media messages, in a rapidly changing environment. By having comprehensive data on youth's exposure to program activities, we can contrast tobacco initiation for youth with high, medium, and low exposure to program activities. Due to the cross-sectional nature of the YTS, our ability to draw strong causal conclusions about program impact is limited. By re-contacting youth who complete a baseline telephone survey, we can examine how exposure to program activities influences the trajectory of youth smoking and thus enhance the ability of the evaluation to attribute change in program goals to program activities.

The longitudinal youth survey should also capture exposure to other program components, such as community initiatives, youth empowerment programs, and tobacco use prevention education in schools. The measurement of these components can help to isolate the independent contribution of the media component of the TCP and identify any synergistic interactions among program components that create enhanced effects. In addition, to isolate the impact of New York's media campaign on youth, we must control for the confounding or complementary effects of other antitobacco media campaigns, such as Legacy's national truth® campaign and any spillover from surrounding state campaigns such as Vermont and/or New Jersey.

We recommend surveying 1,800 10 to 16 year-olds in Year 2 of the evaluation (spring 2004), and are targeting at least a 75 percent response rate for follow-up surveys. We anticipate some loss to follow-up and will adjust the timing and distribution of the sample according to age, media market, and flights of the youth counter marketing campaigns, in order to have a representative sample that is responsive to ongoing tobacco control initiatives. We also recommend using both random-digit-dial survey techniques and commercial lists of households with a high probability of containing a child to contain costs and improve efficiency. Another potential cost saving technique may be to identify some youth in the process of conducting the ATS. Such a technique could also provide parent-youth dyads if that is of interest.

ES.4.7 Enhance the Content of the Adult Tobacco Survey

In June 2003, RTI and the TCP developed the ATS. By September 30, RTI will have completed 2,000 interviews with residents of New York State, with over 1,000 interviews prior to the implementation of the new comprehensive CIAA that went into effect July 24, 2003. Moving forward, we recommend enhancing the ATS in two primary ways. First, we would like to address the gaps in the measurement of program exposures and indicators of short-, intermediate-, and long-term program impacts that we previously noted. This will address the need to have more complete and timely information about statewide and local media campaign efforts so that we can

develop comprehensive measure of campaign awareness and related campaign-targeted attitude items.

Second, we recommend performing a cognitive test of the ATS. We understand that the ATS is already underway, but we believe it is important to identify potential problems with the questions or response options so that they can be improved for future waves. Cognitive interviewing helps decrease measurement error, thereby improving the reliability and validity of the questionnaire and the quality of the data collected.

ES.4.8 Conduct Observational Studies of Compliance with the CIAA

The CIAA calls for all schools, including school grounds, to be smoke free and for all public and private colleges, universities, and other educational and vocational institutions to not permit smoking indoors. The TCP's strategic plan calls for the TCP and Community Partners to work with RTI to conduct a statewide assessment of the tobacco use on a representative sample of middle and high schools and post-secondary campuses. In addition, Community Partners are being asked to perform community assessments of compliance of bar, restaurants, bowling establishments and other venues covered by the new, comprehensive law.

Observational research provides researchers with unbiased data and analysis of the nature or qualities of a topic under study. Conducting observational research can, however, be time-consuming, and many of the Community Partner representatives work on a voluntary basis for their local coalitions. While researchers recognize the advantage of having people involved in the topic area under study conduct observations, the decision to use lay researchers (e.g., Community Partner members) is typically derived from whether having an insider's perspective would help achieve more reliable measures. We believe, in this case, that an outsider's perspective and specific training in this method will ensure comparable data across locations and over time. Therefore, we recommend having staff from the evaluation team conduct observations that complement the Community Partner efforts by either validating or supplementing the partners' efforts in selected locations, such as the case study sites. These data, in conjunction with data collected by ACS/CAAT and Community Partners, will allow us to assess the impact of efforts to encourage more stringent campus policies.

ES.4.9 Conduct 3- and 6-Month Follow-Up Surveys of Participants from the American Legacy Foundation New York Employee Health Study

The American Legacy Foundation (Legacy) funded RTI to collect a baseline survey of bar, restaurant, and bowling establishment workers prior to the implementation of the comprehensive CIAA on July 24, 2003. Legacy is making these data available to RTI and the TCP for follow-up studies. We recommend conducting a 3-month and 6-month follow-up survey to assess the extent of compliance with the new law based on self-reported information and saliva cotinine measures. Follow-up data will allow us to track changes in behaviors and saliva cotinine levels over time to inform compliance and health impact of the CIAA.

ES.4.10 Continue and Enhance Quitline Caller Follow-up Surveys

The main purpose of this survey is to determine how many of the smokers who contacted the Quitline within the past year have stopped smoking. This survey is also used to collect information on methods used to stop smoking and satisfaction with the service. We recommend that the annual follow-up surveys of Quitline callers be continued. In addition to feedback on the Quitline, we recommend that the TCP consider using this sample of smokers and former smokers as a resource for evaluation. Although this sample is not necessarily representative of smokers, it may provide a considerable amount of valuable feedback on the program. Some examples of how this sample may be useful include inquiring about

- support for cessation from HCPs, workplaces, cessation centers, and friends;
- awareness of Medicaid benefits for Medicaid beneficiaries;
- barriers for smoking cessation among low-income, Medicaid-ineligible smokers;
- policies pertaining to smoking in the home and family cars and change vis-à-vis smoking cessation efforts; and
- other influences on quit success/failure.

ES.4.11 Explore the Feasibility of Conducting a Survey of Health Care Plans

Objective 3C calls for increasing the number of health plans that provide coverage of evidence-based treatment for nicotine dependence. Assessing what is available through health plans and what plans employers and employees choose will be challenging. Surveying health care plan administrators may reveal a high proportion of plans that offer benefits, but that does not indicate that employers and employees make use of these offerings. We recommend performing a literature review and working with the TCP and other potential partner agencies to assess the feasibility of gathering data to address this objective.

ES.5 EVALUATION PLAN

The existing and proposed enhancements to the surveillance and monitoring systems will permit us to determine whether the TCP achieves a meaningful level of exposure to program activities/strategies among the targeted populations and the extent to which these efforts translate into changes in program outcomes. With these data in hand, the first step in evaluating the program begins with process evaluation that answers two types of research questions: "What is the program doing?" and "How well is it conducting activities to follow the program's design and to achieve the implementation objectives?" In answering these questions, process evaluations provide information critical to identifying program activities and other factors that may facilitate or impede program achievements and that may require adjustment or correction. The next step in the implicit logic described above is understanding the impact of these efforts on downstream behavioral determinants and behavior. This section outlines a complementary set of strategies that we recommend for assessing program impact through the use of multiple data sets and techniques that will allow us to triangulate our findings.

Building on our understanding of the process data, our next step is to describe analyses that illustrate the potential impact of the TCP on downstream behavioral determinants (e.g., awareness, attitudes, and intentions) and behavioral outcomes (e.g., initiation and cessation). There are a number of analytic descriptive and multivariate strategies to assess program impact on intermediate and long-term outcomes.

Descriptive Techniques

- Analyze trends in intermediate and long-term outcomes over time (e.g., quarterly data from the ATS) and contrast with any relevant and available comparison data from other states.
- Examine trends in self-reported exposure to program activities (e.g., awareness of antitobacco advertisements).
- Examine trends in self-reported outcomes by level of self-reported program exposure (e.g., exposed/not exposed or dose of exposure).
- Examine trends in self-reported program exposure and outcomes by level of program exposure based on external measures:
 - ✓ Media market measures of the dose of antitobacco advertisements
 - ✓ Number/intensity of Community Partners' activities
 - ✓ Regional per capita volume of Quitline calls
 - ✓ Regional variation in news media coverage of tobacco issues
- Interrupted time-series analysis of changes in program outcomes as policies are changed or new interventions are implemented. For example, pre-post analyses of
 - ✓ the effects of the July 24 implementation of the comprehensive CIAA on exposure to SHS,
 - ✓ tax-paid sales data in New York State and City after the implementation of the excise tax increases, and
 - ✓ self-reported cessation behavior once regional cessation centers are established and promoted.
- Contrast changes in self-reported outcomes over time from longitudinal surveys as a function of self-reported or external measure of program exposure (e.g., are smokers exposed to a larger dose of Community Partner activities as baseline more likely to attempt to quit in follow-up surveys compared with those with a smaller dose).

Multivariate Methods

- Relate self-reported exposure to program activities to self-reported program outcomes in cross-sectional surveys at a point in time and with time-series data, controlling for confounding factors.
- Assess the correlation between self-reported exposure to program activities to self-reported program outcomes in longitudinal surveys, controlling for confounding factors such as baseline susceptibility to tobacco use or intentions to quit.

The advantage of a quantitative approach is that it provides the opportunity to measure the responses of many people to a limited set of questions, thus facilitating comparison and statistical aggregation of data as described above. By contrast, qualitative methods typically produce a wealth of information from smaller groups of people but increases the depth of understanding of

the program under study (Patton, 2002). Although these findings are not as generalizable as those from quantitative methods, they can provide enriched knowledge of the operation of a program and answer the question of how or why a program worked (or not) to impact change.

Evaluation research stresses the importance of developing measures that provide for a “triangulation” of methods (i.e., multiple data sources and collection strategies) to assure that the conclusions drawn from qualitative analysis are reliable (Patton, 2002). As described above, we propose to collect community-based data from a variety of sources. Although most of these data are qualitative, some of the variables will be quantitative—such as counts of participants and number of activities completed. Table ES-1 provides an overview of the method of data collection, and selected variables of interest and sources of information for each, followed by a description of how these measures will be developed and collected.

Table ES-1. Qualitative Data and Sources

Method of Data Collection	Selected Variables of Interest	Sources of Information
Program Monitoring System	Counts of activities, interactions with partners	All current Community Partners
Quarterly Reports	Feedback on how activities are going, objectives that are met (or not), facilitators and barriers	All current Community Partners
Case Study	Interactions among program components, who is involved and why (e.g., are there others who should be involved), activities that are well received, program operation, community context (e.g., features of the environment impacting program implementation)	Monthly conference calls with local program staff Semiannual site visits to conduct <ul style="list-style-type: none"> • key informant interviews with partners, community leaders, and others; • focus groups with members of the target audiences, retailers, and others; • in-depth interviews with potential partners, current and former coalition members; and • ongoing observation of large local events

The final component of the evaluation plan includes an application of these multiple methods to the existing and recommended data systems by proposing a series of cross-cutting and goal-specific evaluation questions. Each question is accompanied by a brief overview of how each question will be addressed.

ES.6 DISSEMINATION OF FINDINGS

As the evaluation questions are addressed, the findings will be summarized and shared with the TCP and relevant stakeholders for comment and interpretation. Results and recommendations will

be detailed and tailored to particular audiences in periodic reports issued by RTI and analyzed with input from the TCP.

The final step in CDC's Evaluation Framework involves justifying and disseminating evaluation findings. This process involves synthesizing and validating evaluation findings to assess patterns of results. As data are analyzed, we will synthesize findings into a summary of results that combines quantitative and qualitative evaluation studies. This preliminary summary will be discussed with the TCP so that our team can understand their perspective in interpreting results. We will then make judgments about program effectiveness, cost-effectiveness, and recommendations for program improvement based on these findings. These judgments and recommendations will be grounded in scientific principles as well as standards specified by the TCP.

We will work closely with TCP staff to provide the scientific rigor needed to assess program effectiveness, recommend and improve program monitoring systems to satisfy accountability needs, and conduct qualitative studies to support continuous program improvement. The key features of our approach are to (1) maintain close communication, (2) facilitate ongoing program improvement by sharing findings, and (3) facilitate effective reporting and use of evaluation results.

Close communication will be accomplished by regular conference calls and possibly written quarterly reports. We believe that the reports, and their Executive Summaries, should be tailored in substance and style (level of detail, method of presentation, and amount of technical justification) to the needs of identified audiences. As the implementation of the evaluation moves forward, we suggest that RTI, the TCP, and possibly the Advisory Board meet to discuss a plan for disseminating information to program stakeholders via regular reports and other dissemination products.

RTI understands that disseminating evaluation findings means much more than creating reports. It means *translating* findings into meaningful information that is presented in a manner and context that is relevant to the work and objectives of stakeholders. For example, for Legacy, we developed a comprehensive dissemination plan and developed a series of *First Look Reports* to rapidly share information with a general public health audience. Accordingly, our team places special emphasis on planning dissemination products that are useful and applicable to the field. As noted above, we plan to work with TCP staff to determine the most useful forms for reporting findings.

1. INTRODUCTION AND OVERVIEW

1.1 History of Tobacco Control in New York

Organized efforts by the New York State Department of Health (NYSDOH) to prevent and reduce tobacco use began in earnest in 1991 when the National Cancer Institute (NCI) initiated the American Stop Smoking Intervention Study (ASSIST). Through Project ASSIST, NCI funded 17 state departments of health, including New York's, to develop and support community coalitions to act locally to increase pro-tobacco control media coverage, strengthen support for local and state clean indoor air (CIA) laws, reduce accessibility of tobacco products to youth, limit tobacco advertising and promotion, increase excise taxes on tobacco products, and increase demand for cessation. New York State participated in Project ASSIST from 1991 to 1998 and received \$0.6 to \$2.3 million per year from NCI, the predominate funding source for the NYSDOH tobacco use prevention program until 1997.

The focus on local community coalitions proved effective, as evidenced by the many local CIA policies implemented beginning in 1994 in individual counties, as well as other successful local policy initiatives targeting product placement, self-service or herbal cigarette restrictions, and tobacco company advertising restrictions. Although the state had passed a CIA law in 1989 and strengthened the law in 1994 to completely restrict smoking in educational institutions, by 2002 over 77 percent of New York's population lived in jurisdictions governed by local CIA laws that provided more protection than the state law.

The collective efforts of ASSIST coalitions and many other state and local organizations eventually resulted in state-level laws reducing the accessibility of tobacco products to youth. In 1997, New York State amended the Public Health Law (Chapter 433 of the Laws of 1997) to establish the Youth Tobacco Prevention and Enforcement Program in the Center for Environmental Health within the Department of Health, giving enforcement teeth to the Adolescent Tobacco Use Prevention Act enacted in 1992. The 1997 amendment required tracking of retailer enforcement activities and the publication of an annual report. The law was subsequently strengthened in amendments of 2001–2003, requiring retailers to obtain positive proof of age, limiting the location of vending machines, prohibiting unlawful shipment of tobacco via the Internet and other mail order sales, and restricting product placement.

A second statewide policy front was raising cigarette excise taxes and other tobacco taxes. In 1990, the cigarette excise tax was \$0.39 per pack, but three increases between 1993 and 2002 brought the tax to \$1.50. In 2002, New York City increased the excise tax on cigarettes sold within its borders from \$0.08 to \$1.50 per pack. This tax is imposed on top of the state tax, for a combined excise tax on cigarettes sold in New York City of \$3.00 per pack.

Although some local ASSIST chapters had independently promoted local cessation services, the state first focused resources on this area in 1999. In October 1999, the New York Medicaid program initiated a reimbursement program for prescription cessation medications. In February

2000, coverage was expanded to include over-the-counter medications. In each succeeding year, Medicaid expenditures for cessation medications have increased dramatically.

In 1998, new potential sources of funding catalyzed the development of ambitious plans for a more comprehensive tobacco use prevention program. The Master Settlement Agreement (MSA) was agreed to in 1998, resulting in a first annual payment to the state, in April 2000, of \$274 million (\$140 million directed to the state, \$73 million to New York City, and \$61 million to the remaining counties). In anticipation of funding for tobacco control activities as a result of the MSA, the New York State Commission for a Healthy New York established a Tobacco Settlement Task Force to develop a comprehensive tobacco control plan for New York State. In December 1998, the Task Force released its blueprint for an adequately funded tobacco prevention and control program in New York State.

In 1998, as the MSA was being negotiated and implemented, the federal government transferred responsibility for supporting state-based tobacco control activities from the NCI to the Centers for Disease Control and Prevention (CDC). As Project ASSIST was winding down and the Commission for a Healthy New York was drafting its Blueprint, the NYSDOH responded to a request for applications from the CDC to develop a comprehensive tobacco use prevention and control program. In October 1999, the CDC's National Tobacco Control Program was initiated and the NYSDOH was awarded a 5-year, \$10 million grant to establish and support a comprehensive, statewide, coordinated, tobacco control program. New York State followed CDC guidelines by planning and implementing population-based community interventions, media and countermarketing activities, policy change initiatives, and surveillance and evaluation activities to document program impact.

The New York State Health Care Reform Act of 2000 (HCRA) was passed at the end of 1999, as the NYSDOH was using its CDC funds to establish the infrastructure for a comprehensive tobacco use prevention and control program. HCRA 2000 directed the NYSDOH to create a program to reduce tobacco use among New Yorkers based on CDC Best Practice guidelines. The legislation appropriated \$130 million to the Department to support a comprehensive tobacco use prevention and control program for 3.5 years. An additional \$2.5 million was dedicated to enforcement activities. The initial appropriation expired on June 30, 2003; subsequently new legislation extended HCRA through June 30, 2005, including funding for the Tobacco Control Program (TCP) at a level of \$36.95 million annually.

In 2000, the American Legacy Foundation (Legacy) awarded a 3-year, \$3 million grant to the NYSDOH to establish and support a statewide youth movement against tobacco as a grassroots companion to Legacy's national truth® advertising campaign. Like the CDC funding, the Legacy funds were combined with the HCRA state appropriation to support the state's comprehensive tobacco use prevention and control program.

1.2 Program Goals and Challenges to Evaluation

The TCP's comprehensive approach to reducing tobacco addresses four main programmatic goals: (1) eliminate exposure to secondhand smoke (SHS), (2) decrease the social acceptability of tobacco use, (3) promote cessation from tobacco use, and (4) prevent the initiation of tobacco use among youth and young adults. The other two goals focus on building and maintaining an effective tobacco control infrastructure and contributing to the science of tobacco control. The TCP's comprehensive strategy focuses on six evidence-based intervention strategies to achieve the four programmatic goals:

- Smoking bans and restrictions
- Increasing the unit price of tobacco products
- Provider reminders alone or with provider education
- Multicomponent telephone support systems (Quitlines)
- Reducing patient costs for cessation services
- Multicomponent mass media campaigns with interventions

A key challenge of evaluating such a multifaceted program is to understand which program components are most effective. Although a growing body of research supports multifaceted, comprehensive tobacco control program approaches, many challenges remain to understand which mix of activities, and at what funding level, is optimal to reduce the health and economic burden of tobacco use. The complexity of the problem stems from a number of factors:

- Many program activities begin simultaneously once a program is funded, making it difficult to relate changes in program goals to any one activity.
- Some activities have a clear impact, whereas the impact of others is more diffuse.
- Synergies exist across program activities that add to the complexity of the program.
- Program success is affected by contextual factors.

Contextual factors, such as sociodemographics, culture, tobacco policies (e.g., the recent law to curb the transport of cigarettes from other states to New York residents; fire safe cigarette regulations that are in development), and tobacco marketing, can vary by community, media market, and/or region of the state. These factors may all have important influences on tobacco use and are important to measure if we want to understand the program's impact on stated goals above and beyond these influences.

A related challenge for the evaluation of such a complex program is that many of the tobacco control program activities have all started at roughly the same time. As a result, it is difficult to isolate the impact of individual program components on outcomes. Finally, it may well be prohibitively expensive and burdensome to program staff to collect all the data that would be needed for an ideal evaluation design. In developing an evaluation approach, we account for data limitations, resource constraints, and stakeholder priorities.

In this evaluation plan, we discuss and recommend a broad range of evaluation activities. As we note below, an integral part of the evaluation process is to develop priorities and focus the evaluation. To accomplish this, we have sought out feedback from NYSDOH staff. This document is intended to provide concrete activities for the remaining 3 months of the first year of the evaluation contract and a roadmap of evaluation activities for the next 4 years. As our understanding and experience with the program increases, we will sharpen our recommendations to develop a work plan of future activities.

1.3 Overview of the Evaluation

The purpose of this document is to present an evaluation framework and a set of recommended activities that we hope will make significant progress in addressing the challenge of relating program activities to changes in programmatic goals. We suggest multiple approaches and argue that although no single approach will provide definitive evidence for the effectiveness of the TCP, the pieces taken together will make a strong case as to the effectiveness of the TCP.

We propose a comprehensive evaluation approach to the TCP. We believe this approach is essential to determining whether and to what extent TCP intervention strategies are effective in reducing tobacco use and its health and economic consequences. What's more, it is essential to gathering valuable data that can inform the continuing improvement and high-quality performance management of the program.

Using the CDC's "Framework for Program Evaluation" (1999) as a set of organizing principles and approaches for our work, the evaluation is intended to be sensitive to all phases of the TCP interventions—from initial design, through implementation, to shorter-term and longer-term outcomes. We want to understand how activities are being conducted and how successful they are in meeting their objectives. In addition, because it is often not possible to see changes in ultimate program goals in the short-term, it is necessary to identify upstream indicators of program impact.

We have used several basic principles, seeking to ensure that the evaluation design is *parsimonious* (e.g., by using existing data where they help to answer evaluation questions), that it *triangulates* on TCP process and outcome measures (e.g., through a variety of data collection strategies), and that it is *comprehensive* (e.g., by addressing each goal and each logical step toward the ultimate program outcomes). Our approach

- is guided by CDC's evaluation framework,
- addresses important aspects of the environmental context and sociodemographic makeup of local communities that may affect program outcomes,
- is aimed at developing an in-depth understanding of TCP strategies and program effectiveness in achieving outcome objectives,
- is based on theories of health behavior and behavioral determinants,

- uses existing data and data sources where appropriate and augments those sources with a design and data collection to demonstrate program effectiveness, and
- is grounded in RTI's thorough experience with and understanding of comprehensive tobacco control programs.

Our comprehensive approach offers a number of advantages. First, it is designed to be sensitive to local factors, both in terms of the makeup of local communities and how local partners implement program interventions. We have developed an approach to capture this diversity through multiple data collection strategies. RTI's approach will enable the TCP to demonstrate short-term, intermediate, and long-term program effects. We have analyzed the strengths and weaknesses of existing surveillance and monitoring systems as a basis for evaluating program outcomes.

We also recognize that a comprehensive evaluation will need to address multiple aspects of the social environment within which programs operate and multiple shorter- and longer-term outcomes, many of which are not currently addressed by existing data sources. As a result, we propose measures and instruments based on health behavior theory and our previous work in tobacco control and related areas that address the key *behavioral determinants* (e.g., health attitudes, beliefs, intentions). Using a variety of multivariate statistical techniques and qualitative methods, we will not only be able to demonstrate *whether* the TCP achieved intended outcomes but show *how* such programs achieved results, thus helping to identify promising practices and areas of improvement.

Another rationale for comprehensive evaluation of the TCP is that it generally takes substantial amounts of time before health promotion interventions achieve detectable behavioral and disease prevention outcomes (Lefebvre, 1990). Programs will first achieve short-term and intermediate outcomes, possibly well before achieving measurable changes in tobacco use and exposure to SHS. In the early years of this latest phase of the TCP's implementation, as new initiatives are being developed and existing programs are being refined, short-term and intermediate outcomes—such as increased awareness of the dangers of SHS exposure or knowledge of available resources for smoking cessation—are the most likely observable outcomes. We have developed a comprehensive list of short-, intermediate-, and long-term indicators of program outcomes and required measures for comprehensive evaluation and compared these indicators and data requirements against the available data. This exercise revealed that the existing data sources do not have all of the measures, particularly of “upstream” behavioral determinants, required to assess program effectiveness in the near term. By addressing these data gaps, this strategy will permit us to provide early evidence regarding TCP outcomes and additional opportunities for future intervention opportunities.

As described below, we propose a mixed method research design and data collection approach that incorporates comprehensive evaluation measures. Our approach (1) includes various theory-based short-term and intermediate outcomes likely to ensue from TCP interventions in the early years, (2) addresses social environmental factors (e.g., pro-tobacco advertising, media messages about tobacco) likely to affect program outcomes, and (3) takes full advantage of existing data

sources (e.g., Adult Tobacco Survey [ATS], Behavioral Risk Factor Surveillance System [BRFSS], Youth Tobacco Survey [YTS]) and builds on these to create a strategy for gathering all data needed to measure program activities from inception through various stages of outcomes.

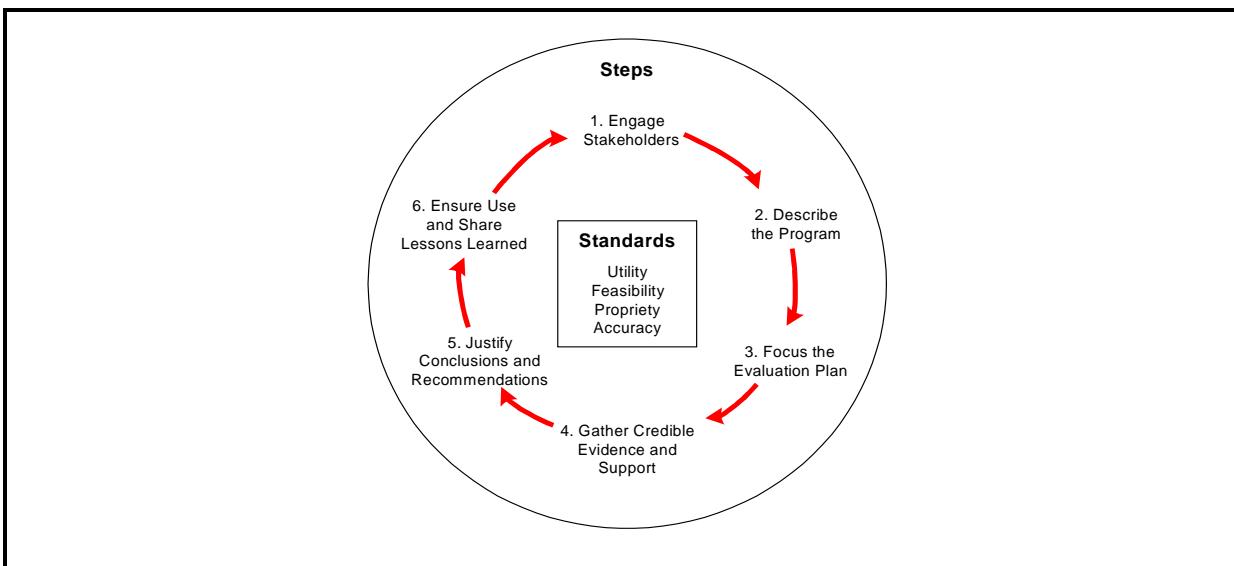
The remainder of this report is organized as follows. Section 2 describes the program; Section 3 summarizes recommended enhancements to the surveillance and monitoring systems to more fully inform the evaluation; and Section 4 describes our general approach to evaluating the program, including specific evaluation questions and methods to address these questions, organized by programmatic goal area.

2. DEVELOPING AN UNDERSTANDING OF THE PROGRAM

2.1 Evaluation Framework

In this section, we provide an overview of the process we followed in developing a comprehensive evaluation plan for the TCP. This process of plan development is based on the CDC's "Framework for Program Evaluation in Public Health" (1999) (Figure 2-1). Based on this framework, we have developed a series of steps that will guide the development and implementation of a comprehensive evaluation plan for the TCP.

Figure 2-1. CDC's Framework for Program Evaluation



Source: Centers for Disease Control and Prevention (CDC). 1999. "Framework for Program Evaluation in Public Health." *Morbidity and Mortality Weekly Report* 48(RR11):1-40.

In developing this plan, we began by engaging program stakeholders (**step 1**) with an initial site visit to the program in June 2003 to begin the process of describing the program. The TCP director and assistant director described and answered questions about the current organizational structure of the TCP, staffing and staff responsibilities and the strategic plan, and how these had changed over the past 2 years. TCP staff also described CDC grant obligations and the new and re-procurement schedule. Individual programs were described in meetings with TCP staff with lead responsibilities in community coalitions, youth (Reality Check), school health networks, the Quitline, media placement, and youth access/enforcement. Meetings were held with Advisory Board and Statewide Coalition members to discuss perceived priority areas and facilitators and barriers to achieving optimal program impacts. The TCP surveillance and evaluation team also described their current and planned efforts, and initial discussions were held on how the latter could be meshed with RTI evaluation efforts.

After this initial meeting, we gathered and reviewed program documents to obtain a deeper understanding of the program and its components. Based on this understanding, we developed evaluation planning matrices (**step 2**) to examine and explain relationships among program activities, outputs, and goals. A complementary activity involved assessing the adequacy of the existing surveillance and monitoring systems for answering evaluation questions and identifying data needs. The evaluation planning matrices and assessment of the available data systems are presented in Appendix A. Based on our understanding of the program and the available evaluation data, we then developed a range of evaluation strategies and activities and worked with the TCP to prioritize these activities (**step 3**). The remainder of this report describes the recommended activities to implement a comprehensive evaluation plan, which is the plan for completing **step 4**, gathering credible evidence. We recommend enhancements to the existing surveillance and program monitoring systems based on our assessment of data adequacy and other evaluation activities that will enable us to assess the program's impact on program goals. As these activities are implemented, the final **steps (5 and 6)** of the CDC Framework involve implementing and synthesizing the evaluation strategies and developing a dissemination plan that addresses the needs of program stakeholders. This includes communicating the program and policy significance of major evaluation findings.

2.2 Describing the Program

As noted above, the second step in the CDC framework is to develop a deep understanding of the program. Specifically, the goal of this section is to map the relationships among program activities, outputs, and goals and to assess the adequacy of the existing surveillance and monitoring systems (i.e., content, geographic coverage, and accuracy) for implementing a comprehensive approach. We begin by summarizing each surveillance and monitoring system. We then present and summarize the evaluation planning matrices that we developed for each program goal in partnership with TCP staff.

2.2.1 Existing Surveillance and Monitoring Data

The evaluation planning matrices have guided our assessment of the adequacy of the current systems available for evaluation, such as various surveys of adults (ATS, BRFSS, Current Population Survey [CPS]), youth (YTS), and other special populations (Pregnancy Risk Assessment Monitoring System [PRAMS]), supplemented by local program monitoring systems (e.g., Quitline, community data reporting). The existing surveys provide a wealth of data on individual tobacco use behaviors and more limited data on self-reported exposure to program activities. We summarize the current data sources below.

Adult Tobacco Survey

The ATS was developed by the TCP in partnership with RTI. The survey was first fielded on June 26, 2003. Currently, we plan to complete 2,000 interviews per quarter, stratified by the nine New York State media markets. In addition, we plan to conduct 1-year longitudinal surveys with 2,000

respondents, which will help us better evaluate the impact of tobacco control activities on program outcomes. Before the implementation of the comprehensive Clean Indoor Air Act (CIAA) on July 24, 2003, we completed 1,024 interviews, which will serve as a baseline measure for evaluating the impact of the CIAA. This survey has a rich set of questions that will be helpful for evaluating many aspects of the program.

Behavioral Risk Factor Surveillance System

The CDC established the BRFSS in 1984. When the BRFSS was first initiated, 15 states collected surveillance data on risk behavior such as smoking and drinking for the adult, civilian, noninstitutionalized population 18 years and older through monthly telephone interviews. The number of states included in the BRFSS increased over time. Since 1995, 50 states, the District of Columbia, and 3 territories participate in the survey.¹ Today the BRFSS is the largest continuously conducted telephone health survey in the world (CDC, 2003).

New York State has been represented in the BRFSS since 1985. Table 2-1 summarizes the number of survey respondents per year for New York from 1995 through 2002. Appendix B summarizes historical information on tobacco-related questions that have been asked from 1995 through 2003.

Table 2-1. Number of Completed BRFSS Interviews by Year, 1996–2002

Year	Number of Respondents
1995	2,477
1996	4,312
1997	3,403
1998	2,527
1999	2,650
2000	3,361
2001	3,899
2002	4,393

Current Population Survey Tobacco Use Supplement

The Tobacco Use Supplement (TUS), sponsored by NCI, is a source for national and state-level data on tobacco use behaviors and attitudes and workplace smoking policies and programs. The TUS is a part of the 1992–1993, 1995–1996, 1998–1999, and 2000 CPS, a monthly labor force survey conducted by the U.S. Census Bureau. The CPS interviews household members who are 15 years of age and older to gather information about labor force characteristics, such as employment status, earnings, and hours of work, and demographic characteristics, such as age,

¹We excluded the territories from the analysis data set.

sex, income, marital status, and educational attainment. Each household is interviewed once a month for 4 consecutive months, then interviewed again 1 year later for the same corresponding time period.

Participation in the smoking supplements differs from the basic monthly survey. CPS household members who are eligible to respond to the supplement's questions (ages 16 and older for the September 1985 supplement, ages 15 and older for all other supplements) can either answer by self or by proxy. Proxy respondents can only respond to certain questions.² Smoking supplement questions consist of the following topics:

- Cigarette smoking prevalence
- Smoking history
- Current and past cigarette consumption
- Quit attempts and intentions to quit
- Medical and dental advice to quit smoking
- Cigar, pipe, chewing tobacco, and snuff use
- Workplace smoking policies
- Smoking rules in the home
- Attitudes toward smoking in public places
- Opinions about the degree of youth access to tobacco in the community
- Attitudes toward the advertisement and promotion of tobacco

Table 2-2 summarizes the number of survey respondents per year for New York.

Table 2-2. Summary of Number of Survey Respondents, 1992-1999

Year	Number of Respondents
1992	8,768
1993	17,453
1995	9,418
1996	15,767
1998	7,899
1999	15,142

²Proxy respondents can only answer questions concerning lifetime smoking (has the person ever smoked 100 cigarettes in his or her lifetime), age when the person first smoked a cigarette, current smoking status, and lifetime and current use of other tobacco products (cigars, pipes, chewing tobacco, snuff).

HeartCheck Worksite Surveys

NYSDOH's Healthy Heart Program implements a periodic worksite survey that includes a series of relevant questions for tobacco. The following measures may be useful for understanding compliance with the CIAA and for assessing the extent to which cessation efforts by smokers are supported in the workplace. The following measures are included on the survey:

- Workplace smoking policy
- Incentives for smoking cessation
- Health insurance support for smoking cessation
- Tobacco products available for purchase on company property
- Antismoking education materials provided

Youth Tobacco Survey

The New York YTS was conducted in 2000 and 2002 in coordination with the National Youth Tobacco Survey (NYTS). For these years, the instrument was identical to the NYTS, which will facilitate comparison in youth tobacco use in New York versus the remaining United States. The NYTS was developed to measure the tobacco-related beliefs, attitudes, and behavior of youth and the pro- and antitobacco influences to which they are exposed. The anonymous, self-administered questionnaire includes questions about use of various tobacco products, including chewing tobacco, cigars, and bidis; exposure to SHS; factors that encourage smoking, such as having friends and family who smoke; factors that discourage smoking, such as school prevention programs and advice to quit; and awareness of pro- and antitobacco advertising. A total of 8,857 and 8,058 students were surveyed in 2000 and 2002, respectively, in collaboration with the NYTS.

Pregnancy Risk Assessment Monitoring System

PRAMS collects population-based data on maternal attitudes and experiences before, during, and immediately following pregnancy. PRAMS is conducted in New York State and New York City and includes a core set of questions on tobacco use (below). Each year 1,600 women are surveyed in the state.

1. Have you smoked at least 100 cigarettes in the past 2 years?
2. In the *3 months before* you got pregnant, how many cigarettes or packs of cigarettes did you smoke on an average day?
3. In the *last 3 months* of your pregnancy, how many cigarettes or packs of cigarettes did you smoke on an average day?
4. How many cigarettes or packs of cigarettes do you smoke on an average day *now*?

Although there are no specific initiatives that we are aware of for pregnant women at this time, this survey may be useful for future evaluation efforts.

Employee Health Study

After amendments to the Public Health Law (PHL), Article 134e, were signed into law, Legacy funded RTI to document and quantify workplace exposure to SHS in nonsmoking employees in occupations with typically high SHS exposure (restaurants, bars, and bowling establishments) before the implementation of PHL 1399. This baseline assessment included collecting one or two saliva cotinine samples of nonsmoking restaurant, bar, and bowling establishment employees following two work shifts prior to July 24, 2003. In addition, eligible study subjects completed a brief survey that addressed

- attitudes toward SHS,
- reactions to being exposed to SHS in public places,
- practices surrounding patrons' noncompliance with the establishment's smoking policy,
- current employment,
- exposure to SHS during working and nonworking times,
- rules about smoking in the home and family cars,
- awareness of the new law,
- support for the new law,
- respiratory symptoms,
- superficial health complaints,
- sociodemographics (e.g., marital status, education, race/ethnicity, and zip code), and
- health insurance coverage.

Eighty-seven participants completed this questionnaire and of these, 69 completed a saliva sample. For example, of those who completed the question about support for the law ($N = 86$), 73 percent were either in favor of the law or were indifferent, 13 percent were opposed, and 7 percent were not sure. A power calculation before the study was implemented suggested that a sample size as small as 45 may be sufficient for testing the impact of the law on SHS exposure. The power calculation was based on a single 3-month follow-up study.

New York State Quitline Data

Current reports for the Quitline by Roswell Park Cancer Institute (RPCI) contain several useful data points, including (1) number of callers choosing to speak with a Quitline counselor who provided stop-smoking counseling and information on local programs, (2) number leaving a voice mail message for a free stop-smoking packet to be mailed, (3) number choosing to listen to the taped message library, and (4) number leaving a message requesting that a counselor call them back. Data collected through the Quitline include demographics (race/ethnicity, education, city or town of residence), source of referral, an indicator of whether the consumer made a previous Quitline call, smoking history, cigarette type (i.e., full-flavor, light, ultralight, and menthol/nonmenthol), previous quit methods, and insurance coverage.

In addition to these data, RPCI has conducted annual follow-up surveys of Quitline callers since 2000. Random samples of at least 500 subjects who have called for cessation services are reinterviewed 12 months after their initial call to the Quitline. Items assessed include process issues, such as receipt of the stop-smoking materials, methods used to quit, and smoking behavior. The main purpose of this survey is to determine how many of the smokers who contacted the Quitline within the past year have stopped smoking. The primary dependent variable is 7-day nonsmoking prevalence. This survey is also used to collect information on methods used to stop smoking and satisfaction with the service.

Tax-paid Sales Data from New York State and New York City

Monthly data on tax-paid sales are available from both New York State and New York City Departments of Finance. RTI has obtained current data through July 2003. In addition, RTI has tax-paid sales from all states from 1955 through 2002, which will be useful for developing comparisons with New York State.

Cigarette Price Data

There are several sources of cigarette price data that will be helpful for informing the program. There are at least three data sources for tracking cigarette prices in New York. The first is *The Tax Burden on Tobacco*. This free publication reports state-level average price for a pack of cigarettes (as well as sales and cigarette tax data) annually going back to 1955. This historical information provides a useful context for interpreting current cigarette prices.

A second option comes from self-reported prices from youth and adults captured from population-based surveys. The YTS asked “During the past 30 days, what did you pay for the last pack of cigarettes you bought?” (response categories range from less than \$1.00 to over \$5.00 in \$0.50 increments in 2000 and 2002 the YTS asks). This question will also be asked in the 2004 YTS. The ATS will ask respondents for the price paid for the last pack of cigarettes bought beginning with the 2003 Q4 survey.

Finally, a potentially very useful data source for tracking cigarette prices is scanner data from ACNielsen. Scanner data are collected in the retail outlet where cigarettes are sold and capture all features of the tobacco product being sold, including price, promotion (if any), and cigarette type (e.g., menthol, light). Scanner data are reported for retail markets (Figure 2-2) within New York State and therefore provide a very useful source of within-state variation. Scanner data do have drawbacks, however: they are expensive and there are restrictions on releasing the information publicly, but the level of detail and timeliness is unsurpassed by any other existing data source. RTI currently licenses from ACNielsen cigarette scanner data from grocery stores reported quarterly from 1994 through 2002.

Figure 2-2. Retail Markets in New York State



Community Partner Reports

The current monthly Community Partner Reports collect information about the activities, community changes, and earned media related to the implementation of activities in support of each program goal. The information on activities is largely descriptive. In addition to these monthly reports, information on statewide initiatives is gathered by initiative-specific tracking forms.

Functional Analysis of Coalition Effectiveness

Members of the NYSDOH's TCP and the Tobacco Surveillance and Evaluation Team collaborated on the development of a Coalition Capacity Survey. The purpose of this survey is to improve the understanding of how program community coalitions function, determine the factors that may affect a coalition's effectiveness at mobilizing communities, and determine how training might be directed to improve coalition effectiveness. Twenty-five of the 26 TCP's coalitions participated in the survey, which was conducted in spring 2002. Factors of leadership, decision making, satisfaction, conflict, communication, and evaluation were studied.

Medicaid Administrative Claims Data

Medicaid claims data provide information regarding the use of prescription and over-the-counter smoking cessation products. Information is available by county, by year, for all ages of Medicaid recipients.

Hospital Discharge Data

The Statewide Planning and Research Cooperative System (SPARCS) is a comprehensive patient data system established in 1979 as a result of cooperation between the health care industry and the New York State government. The enabling regulations require that inpatient data be submitted by all Article 28 facilities certified for inpatient and that outpatient data be submitted by all hospital-based ambulatory surgery services and all other facilities providing ambulatory surgery services. Data are to be submitted according to a designated format and schedule. In 1993, an ad hoc task force of the NYSDOH developed a Universal Data Set (UDS) Specification that streamlines multiple data submission formats into a single format, removing redundant reporting requirements for hospitals and other health care facilities. Information is available by county, by year, for all ages. In addition, case mix and longitudinal files are also available for research purposes.

Cancer Registry

The New York State Cancer Registry collects, processes, and reports on information about every New Yorker diagnosed with cancer. Information from the registry is population based; incidence and mortality rates by site of cancer, for New York State, New York City, New York State excluding New York City, and county are available annually.

International Tobacco Control Policy Survey

An ongoing cohort study by RPCI is examining changes in behavior among nationally representative samples of over 2,000 smokers in each of the United States, Canada, Australia, and the United Kingdom who are surveyed every 6 months over a 3-year period. This project is currently funded by several sources, including the Robert Wood Johnson Foundation, the Canadian Institutes for Health Research, and Cancer Research U.K. The purpose of this study is to examine the impact of national-level tobacco control policies, such as warning labels and advertising restrictions, on smokers' knowledge, attitudes, beliefs, and smoking behavior; however, sub-national comparisons can also be made. Wave 1 of the survey was completed in fall 2002, Wave 2 is currently in the field, and six survey waves are planned. In this survey, smokers are asked about their support for CIA laws, their exposure to SHS, worksite and home smoking policies, hospitality patronage patterns, cigarette purchase patterns, and smoking behavior. Approximately 150 respondents reside in New York State who can be used to contribute to the evaluation of the program.

Survey of Erie and Niagara County Residents

Funded by the Erie/Niagara Tobacco Free Coalition through a grant from the NYSDOH, a comprehensive 25-minute tobacco use survey was implemented in Erie and Niagara Counties between October 2002 and March 2003. For this survey, 1,548 subjects were interviewed, including nearly 1,000 smokers. A follow-up survey is occurring in fall/winter 2003–2004 of all subjects initially interviewed. Outcomes assessed include support for CIA policies, exposure to SHS on the job and at home, and indicators of changing in patronage to hospitality venues. Although these data are not representative of the entire state, they do represent the second largest metropolitan area in New York State and will complement other data sources examined.

Bureau of Labor Statistics Employment Data for the Hospitality Industry

Data on the number of employees in restaurants, bars, and hotels are available monthly for each county in New York from the New York State Department of Labor (NYSDOL) from 1990 to present. Virtually any business that pays any employees in a given quarter must submit a report to the NYSDOL stating the number of employees they had in each month during that quarter for the purposes of determining unemployment insurance premiums and their quarterly payroll.

State Department of Taxation and Finance

Retrospective longitudinal data are available on taxable sales from “eating and drinking establishments” and “retail trade” from March 1990 to present for each county in New York State from the New York State Department of Taxation and Finance. Businesses are classified into a particular business according to the code reported on their income tax returns using the federal Standard Industrial Classification (SIC) coding system. The codes for “eating and drinking places” are 58.10–58.13, the codes for “retail trade” are 52.00–59.99, and the codes for hotels are 70.10–70.41.

Community Intervention Trial for Smoking Cessation

The Community Intervention Trial for Smoking Cessation (COMMIT) was a randomized, community-based smoking cessation trial that the NCI conducted between 1988 and 1993. In this study, 20,000+ smokers were identified in 22 North American communities at baseline and subsequently reinterviewed 5 years later to assess changes in smoking behavior in response to the intervention. Four communities were located in New York State, including two downstate communities (Yonkers and New Rochelle) and two upstate communities (Utica and Binghamton). In 2001, 7,329 follow-up interviews were completed. Six hundred of these interviews were from smokers who lived in one of the four New York State communities, and these subjects were asked a detailed series of questions about their purchase patterns, including the use of the Internet and other less expensive sources of cigarettes.

Western New York Employee Health Study

This study assesses current sources and levels of SHS exposure among nonsmokers using validated interview items and blood cotinine measurement. A major focus of this study is to examine how

exposure and health indicators change in hospitality workers. Participants complete a baseline set of measures (interview data, pulmonary testing, biologic specimens) and then return for repeat assessment 12 months after the initial visit. Over 100 subjects have been recruited into this study and provided baseline data, including 60 hospitality workers. The overall goal of this project is to assess SHS exposure among nonsmokers and associations between SHS and preclinical changes in lung resistance and premalignant cytogenetic abnormalities as assessed using peripheral blood specimens.

2.2.2 Evaluation Planning Matrices

In this section, we summarize the key findings from the evaluation planning matrices for each of the program goals. This includes a summary of the specific program objectives and indicators of long-term progress toward these goals as outlined by the TCP's strategic plan. In developing the evaluation planning matrices, we developed short- and intermediate-term markers of program progress to identify measures that can be developed to provide more timely evaluation feedback to the program. We have also identified the specific data available to evaluate each goal and noted any gaps in the available surveillance and monitoring systems. Each of the evaluation planning matrices is presented in Appendix A. Within each goal, we make specific recommendations for enhancements to the surveillance and monitoring systems. The following section then makes cross-cutting and more detailed recommendations for enhancements to the data infrastructure.

Goal 1: Eliminate Exposure to Secondhand Smoke

Program Objectives, Description, and Actors with Major Responsibilities. In 1992, SHS was classified by the U.S. Environmental Protection Agency as a Group A carcinogen, which is known to cause cancer in humans. SHS contains over 4,000 chemicals, including formaldehyde, cyanide, arsenic, carbon monoxide, methane, and benzene. Between 30,000 and 60,000 deaths from cardiovascular disease are attributable to SHS exposure each year. SHS exposure increases the risk of asthma and ear infections in children (Davis, 1998; DiFranza, 1996; Mannino et al., 2001), and children who are exposed to parental smoking are at increased risk for bronchitis, pneumonia, and respiratory symptoms (Cook and Strachan, 1997; Cook, Strachan, and Carey, 1999).

The recently passed CIAA (Public Health Law, Article 13-E) virtually eliminates public exposure to SHS in New York State by restricting smoking in all workplaces and almost all public places thereby limiting exposure to SHS. Eliminating exposure to SHS reduces morbidity and mortality. In addition, the elimination of tobacco use from public and work places may contribute to changes in the perception of tobacco use as normative.

Research has also shown that adopting restrictions on smoking in the home is associated with decreased exposure to SHS (Biener et al., 1997; Kegler and Malcoe, 2002). Recent studies suggest that smokers who are aware of the health benefits of smoking bans may be more likely to implement them (Gilpin et al., 1999; Pizacani et al., 2002; Norman et al., 2000). Similarly, smokers with children are also more likely to have a smoking ban than those without children

(Gilpin et al., 1999; Pizacani et al., 2002). Gilpin et al. (1999) found that the younger the age of the youngest child, the more likely the household was to have a full smoking ban. Nationwide, the 1998/1999 CPS's TUS shows that 61 percent of households do not permit smoking, up from 52 percent in 1995/1996 and 42 percent in 1992/1993.

To limit New Yorkers' exposure to SHS, the TCP has several specific programmatic objectives:

1. Increase the percentage of adults who support or strongly support New York's comprehensive CIAA.
2. Increase the percentage of workplaces that are in compliance with New York's comprehensive CIAA.
3. Increase the percentage of adults and youth who live in households where smoking is prohibited.
4. Increase the percentage of adults who drive or ride in vehicles where smoking is prohibited.
5. Increase the number of educational institutions that implement effective tobacco-free policies to eliminate tobacco use from all facilities, property, vehicles, and events.

Achieving these objectives involves several key groups and program components, including the TCP, Community Partnerships, the Coordinated School Health Networks, and collaborations among these groups and state and local organizations. The TCP will partner with other organizations and groups (e.g., New York State Commissioner of Insurance, media) to develop and implement statewide strategies, policies, and campaigns (e.g., a statewide media campaign) and to provide training and technical assistance to Community Partnerships throughout the state.

The Community Partnerships will then concentrate their efforts on meeting the objectives developed by the TCP on the local level by (1) educating and raising awareness of SHS by developing strategies, materials, and resources to reach community members, employers, and the media; (2) conducting local assessments of compliance with the CIA laws and tobacco use; (3) collaborating with local media to localize the media efforts; and (4) building partnerships with other organizations to develop new insurance policies and messages to encourage reduced tobacco use.

To supplement the work done by the Community Partnerships, the Coordinated School Health Network will focus on providing resources and support to implement tobacco-free policies within educational institutions. This will involve not only identifying and cataloging existing policies but developing protocol for working with schools to encourage and implement new policies.

Evaluating and Monitoring Progress toward Objectives. Measuring the program's success in eliminating exposure to SHS ultimately requires long-term measures, such as effective implementation of the CIAA, reduced exposure to SHS among employees (especially hospitality workers), and individual smoking restrictions in the home and in vehicles. However, short- and intermediate-term outcomes can be used to indicate progress toward these long-term outcomes.

Based on the program activities outlined in the Evaluation Planning Matrix for Goal 1 (Appendix A), we recommend collecting the following measures:

- Short-term Outcomes
 - ✓ Number of trainings conducted
 - ✓ Number of activities implemented by Community Partners
 - ✓ New local media strategies developed and implemented
 - ✓ Partnerships and coalitions formed between Community Partners and local and state organizations
 - ✓ Resources disseminated (e.g., direct mail, Quitline resources)
 - ✓ New insurance plans and programs developed
 - ✓ Baseline measures of businesses effectively implementing the CIAA, percentage of public with smoke-free homes and vehicles, educational institutions with smoke-free policies
- Intermediate-term Outcomes
 - ✓ Public awareness of the health effects of SHS exposure
 - ✓ Support for the CIAA
 - ✓ Percentage of the public informed about industry manipulation of SHS information
 - ✓ State agencies implementing or expanding smoke-free laws and policies
 - ✓ New media campaign ads or spots aired
 - ✓ CIAA compliance among businesses
 - ✓ Public awareness of SHS campaign and strategies implemented locally and statewide
 - ✓ Insurance agencies and plans adopting new smoke-free policies
 - ✓ Follow-up data collection on baseline measures of effective CIAA implementation, public with smoke-free home and vehicles, and educational institutions with smoke-free policies

A variety of data sources can be used to measure many of the long-term outcomes being proposed, including the ATS, CPS, Employee Health Survey (EHS), and YTS. Table 2-3 describes the information collected by these measures.

Recommended Enhancements to the Surveillance and Monitoring Systems. These existing data sources collect a wide range of measures necessary for evaluating progress toward eliminating SHS exposure. However, additional information is needed to fully understand the linkages between short-, intermediate- and long-term outcomes associated with each of the project activities. Based on a review of the Evaluation Planning Matrix for Goal 1, the following data sources could be enhanced to elicit additional information as highlighted below:

Table 2-3. Information Collected by Different Sources

Survey	Measures
Adult Tobacco Survey, 2003-Quarter 3	<ul style="list-style-type: none"> • F1: Home smoking rules and restrictions • F2: Smoking rules in family car(s) • F6: Exposure to SHS in the workplace • F7: Official workplace smoking policy • F8: Official workplace smoking policy for indoor public or common areas • G10-14: Awareness of health effects of SHS • K3: Awareness of the passage of the CIAA • K4: How individual heard of the CIAA • K5: Opinion of the CIAA
Youth Tobacco Survey	<ul style="list-style-type: none"> • 54, 56, 57: Awareness/opinion of industry manipulation tactics • 58: Awareness of health effects of SHS • 80: SHS exposure in vehicles • 81: SHS exposure in the home • 85: Home smoking rules and restrictions
Employee Health Study	<ul style="list-style-type: none"> • 11a: Exposure to SHS in the workplace • 12a: Official workplace smoking policy • 49: Awareness of the passage of the CIAA • 50: Opinion of the CIAA • Saliva cotinine measure of SHS exposure
Current Population Survey	<ul style="list-style-type: none"> • Official workplace smoking policy for indoor public or common areas • Official workplace smoking policy • Exposure to SHS in the workplace
CIAA Tracking Form	<ul style="list-style-type: none"> • Media distributed (broadcast, print, outdoor ads) • Community/business contacts • News media coverage • Number of events

ATS.

- Awareness of strategies to decrease SHS exposure
- Awareness of industry manipulation of SHS information
- Awareness of SHS media campaigns and local activities
- Attitudes specific to TCP media campaigns and strategies
- Attitudes toward smoke-free home and vehicle restrictions

Community Partner Monthly Reports. The Community Partner Monthly Report currently asks Community Partners to describe the progress during the past reporting period toward

implementing strategies to achieve program objectives. We recommend including more specific guidelines to the Community Partners regarding the types of information that should be reported. This would be similar to the County Tracking Form and would capture the following information:

- Progress toward implementing local surveys and observational compliance checks
- Number of meetings with local partners
- List of local partners and community members attending meetings
- Number of activities conducted
- Intended audience for planned activities, resources, and campaigns
- Expected receptivity to activities and the CIAA among the public and community leaders

In addition, the TCP will need to document their efforts to meet the objectives of this goal to capture such information as

- trainings provided to Community Partners and media groups;
- partnership and collaborations formed to strengthen and expand the CIAA, as well as develop new policies to promote SHS homes and vehicles; and
- materials development and distribution.

Observational Study. Several data sources, such as the ATS, Employee Health Study, and the CPS, provide self-reports of official workplace smoking policies and exposure to SHS. However, in light of the importance of the new comprehensive CIAA, we propose working with Community Partners and the TCP to develop a protocol for assessing workplace compliance with the new law (especially in restaurants, bars, and bowling establishments) to validate and complement these existing data sources. To ensure comparable data across sites, common data collection measures should be developed and Community Partners trained in data collection. We propose building on and extending the observational study of compliance with the law among hospitality businesses conducted in July and August by the Center for a Tobacco Free New York. Additional insights into compliance with the new law can be gained as part of a case study approach.

Community-based Study/Structured Interviews. To determine the extent to which program plan activities are being implemented in communities and to gather detailed information about reactions to program components among stakeholders, a qualitative community-based study is proposed. This study would gain in-depth information from carefully selected communities that would add context to the quantitative findings from other data collection methods. The community-based study will delve into such key issues as how local collaborations and partnerships are being developed to address SHS; how SHS activities are developed and implemented on the local level; barriers and facilitators to achieving program objectives; how the Community Partnership's involvement with SHS activities grows, changes, and develops over time; and what kinds of opposition Partners experience as they implement strategies to eliminate SHS exposure. It will be essential to have an understanding of these specific issues as they will help explain qualitatively what role the Community Partners play within the program and how these groups are organized and function.

Enhancing these data instruments will allow for the collection of more detailed and comprehensive evaluation measures, but some gaps will still exist. Several of the proposed program activities under Goal 1 call for the TCP and Community Partners to partner with the New York State Automobile Dealers Association, the New York State Commissioner of Insurance, and individual automobile agencies to develop new policies and messages to promote smoke-free vehicles and homes. Measuring the progress made toward statewide implementation of insurance policies and vehicle trade-in values could prove challenging. Developing rigorous evaluation measures will require additional consideration and will be addressed as the overall evaluation planning period continues.

Goal 2: Decrease the Social Acceptability of Tobacco Use

Program Objectives, Description, and Actors with Major Responsibilities. The tobacco industry has claimed that its marketing efforts are intended to strengthen brand loyalty and encourage brand substitution among the smoking adult population, aged 18 and older (Cummings et al., 2002). Research indicates, however, that the tobacco industry has targeted teens and youth with success. A wealth of evidence demonstrates that teens are highly aware of tobacco advertising (e.g., Arnett and Terhanian, 1998; Fischer et al., 1991) and that exposure to and liking of cigarette advertisements are related to subsequent smoking initiation and maintenance (e.g., Botvin et al., 1993; Feighery et al., 1998; MacFayden, Hastings, and MacKintosh, 2001). Furthermore, the brands most likely to be advertised in magazines with high youth readership are also the most popular brands among teens (King et al., 1998). Recent longitudinal studies have shown that youth's attraction to advertisements and their willingness to own pro-tobacco gear (promotional items, such as hats, T-shirts, and lighters) is linked to a greater likelihood of future smoking experimentation and regular use (Pierce et al., 1998; Biener and Siegel, 2000).

The 1998 MSA restricted the marketing of cigarettes to youth. Specifically, the industry agreed not to "take any action, directly or indirectly, to target youth... in the advertising, promotion, or marketing of tobacco products" (Master Settlement Agreement, 1998). Numerous outlets remain available to the industry to promote their product. Magazine and newspaper advertisements, posters and displays in retail outlets, and promotional activities in "adult-only" establishments (bars or clubs) have survived as legal marketing opportunities. Recent data indicate that the tobacco industry has increased its overall advertising and promotional expenditures to record levels since the MSA. In 2001, the tobacco industry spent \$11.2 billion on advertising and promotions, a 66.6 percent increase from the \$6.7 billion it spent in 1998. In addition, studies indicate that the tobacco industry purposefully targeted teens by increasing its advertising expenditures in magazines with high youth readership in the year after the MSA, despite the prohibition of marketing strategies that target youth (Chung et al., 2002; King and Siegel, 2001). Tobacco company advertising and promotions also increased significantly at retail outlets following the settlement (Wakefield et al., 2002). Trends in tobacco company promotional expenditures identify a shift in cigarette marketing strategies in recent years. Between 1998 and 2001, promotional expenditures (e.g., coupons, two-for-one deals, promotional allowances to

cigarette retailers) increased by 85 percent, while expenditures on advertising (magazine, newspaper, billboard, transit, and point-of-sale) declined by 47 percent (FTC, 2002). However, the tobacco industry still spends heavily on cigarette advertising. In 2000, the industry spent \$498 million on magazine, newspaper, billboard, transit, and point-of-sale advertisements, or roughly \$1.70 per U.S. resident (FTC, 2003).

Recent analyses suggest that the tobacco industry has begun to focus more attention and resources on the young adult population, aged 18 to 24. One recent study reveals that cigarette companies have increased the use of the alternative press to entice young adults to attend promotions at bars and clubs (Sepe and Glantz, 2002). Another investigation reviews documents that detail the industry's strategy to reach young adults (Ling and Glantz, 2002). Surveys reveal that smoking rates have increased among college students in recent years (Weschler et al., 1998), and Sepe, Ling, and Glantz (2002) suggest that the rise of cigarette promotions in bars and nightclubs may have contributed to this rise. These findings highlight the need to carefully monitor exposure to pro-tobacco advertising and promotions among young adults.

Teens and young adults are also consistently exposed to pro-tobacco images in television and in film. Despite claims that the tobacco industry no longer pays for product placement in television and films, exaggerated portrayals of tobacco use in these media have persisted (Stockwell and Glantz, 1997) and remain much higher than actual smoking rates among the general population (Hazan, Lipton, and Glantz, 1994). Movies also continue to portray smoking as a socially acceptable behavior that people use to relieve tension or facilitate social interaction (Dalton et al., 2002). In turn, evidence from several recent studies suggests that exposure to these images may encourage smoking initiation among youth (Distefan et al., 1999; Tickle et al., 2001; Sargent et al., 2001; Sargent et al., 2002; Dalton et al., 2003). A wealth of evidence clearly indicates that, notwithstanding the best efforts of the public health community, the majority of teens and young adults are still exposed to a large number of pro-smoking messages.

To counter these influences, Goal 2 activities are primarily focused on increasing antitobacco attitudes among youth and adults and on decreasing the prevalence of tobacco advertising and promotions. As noted in the TCP's strategic plan, "effective tobacco use prevention and control depends on de-normalizing—reducing the social acceptability of—tobacco use."

The specific programmatic objectives are to

1. increase antitobacco attitudes among youth and adults;
2. reduce tobacco sponsorship of sporting, cultural, entertainment, art, and other events in the community, region, and state;
3. reduce tobacco promotions occurring in sporting, cultural, entertainment, art, and other events in the community, region, and state; and
4. reduce the number of retailers that post point-of-purchase tobacco advertising.

To accomplish these objectives, the TCP will work with the media contractor and with Community Partners to produce statewide messages and activities that counter tobacco promotional activities

and to educate consumers, tobacco retailers, and the general public about tobacco product promotion and tobacco industry marketing practices. The Community Partners will work with the media contractor to extend the scope of the statewide media campaign to the local level and to maximize media coverage of local antitobacco activities. The Community Partners are responsible for implementing a tobacco sponsorship assessment protocol to assess the extent of tobacco sponsorship at local events and will use the information gained to identify local events from which to eliminate tobacco industry sponsorship. The Community Partners will also disseminate information about tobacco sponsorship, tobacco promotion in movies, and point-of-purchase tobacco advertising in their communities. These combined activities are intended to raise awareness of tobacco promotion in communities, decrease the prevalence of tobacco advertising and promotions in New York, and increase antitobacco attitudes and decrease the social acceptability of tobacco use among New York's youth and adults.

Evaluating and Monitoring Progress toward Objectives. Through a media campaign and local and statewide antitobacco education and promotion activities, the New York TCP seeks to reduce the prevalence of smoking among youth and young adults. A number of measures, including the YTS, ATS, and BRFSS, are capable of monitoring the long-term impact (e.g., changes in smoking prevalence) of these efforts, but the ultimate success of program efforts to decrease the social acceptability of tobacco use depends on shorter-term changes in knowledge, attitudes, and beliefs about tobacco use. These short- and intermediate-term outcomes provide timely feedback on the fidelity with which program activities are implemented and on the progress being made toward long-term outcomes. Measures of short- and intermediate-term outcomes are both quantitative and qualitative in nature, allowing for a comprehensive understanding of the program effects. The list below includes general examples of related measures that are important to monitor as they inform the process and eventual success of this effort to decrease the social acceptability of tobacco use (see the Evaluation Planning Matrix for Goal 2 in Appendix A for more details).

- Short-term Outcomes
 - ✓ Youth and adults receptive to media campaign messages
 - ✓ Level of perceived exposure to countermarketing among youth and adults
 - ✓ Local media coverage of antitobacco promotion activities
 - ✓ Youth and adult awareness of antitobacco activities
 - ✓ Youth and adult attendance at antitobacco activities
 - ✓ Proportion of adults and youth who understand dangers of light and low-tar cigarettes
 - ✓ Awareness of media campaign among specific target groups
 - ✓ Awareness among adults about the effects of tobacco sponsorship
 - ✓ Proportion of youth and adults who report seeing tobacco advertising
 - ✓ Proportion of youth and adults who have noticed tobacco promotions
 - ✓ Number of Community Partners who used movie initiative tool kit in developing activities

- ✓ Media coverage of activities related to movie initiative
- ✓ Number of organizations in the community taking a stance against point of purchase ads
- Intermediate-term Outcomes
 - ✓ Level of awareness about tobacco industry sponsorship and marketing practices (including tobacco promotion and use in movies)
 - ✓ The proportion of adults who support CIA laws and other tobacco control policies
 - ✓ Beliefs among youth about the prevalence and acceptability of smoking among their peers
 - ✓ Beliefs among youth about the prevalence and acceptability of smoking in movies
 - ✓ Number of events where tobacco sponsorship is present
 - ✓ Number of local ordinances restricting point-of-purchase tobacco advertising in retail locations
 - ✓ Increases in enforcement of existing zoning and signage restrictions
- Long-term outcomes
 - ✓ Prevalence of tobacco advertising in shops and bars
 - ✓ The number of people trying/succeeding at cessation
 - ✓ The percentage of youth who have never tried a cigarette
 - ✓ Prevalence of current cigarette use among youth, young adults, and adults

A number of data sources are available from which to collect the information detailed above. Table 2-4 illustrates the data sources and specific measures needed to inform the evaluation of Goal 2.

Recommended Enhancements to the Surveillance and Monitoring Systems. As evidenced above, a good deal of data will be available from existing data sources. The majority of these measures relate specifically to intermediate and long-term goals, so additional measures are needed to adequately assess short-term progress toward achieving program objectives and goals.

To fully assess program impact and effectiveness, we propose implementing additional data systems, including a community-based study and a youth telephone survey, news media tracking, and a standardized measurement of point-of-purchase advertising and promotions described below. It is also recommended that the YTS and ATS be modified to include additional awareness and perception measures directly related to this goal area.

Community Partner Monthly Reports. The Community Partner Monthly Report currently asks Community Partners to describe the progress during the past reporting period toward implementing strategies to achieve program objectives. We recommend including more specific guidelines to the Community Partners regarding the types of information that should be reported. This would be similar to the CIAA County Tracking Form and would capture the following information.

Table 2-4. Goal 2: Data Sources and Specific Measures

Data Source	Specific Items
Adult Tobacco Survey, 2003-Quarter 3	<ul style="list-style-type: none"> • B1 – 7: General tobacco use measures • C9 – 10: Switching of cigarette brands or types • D1 – 4: Duration and frequency of quit attempts • D6, 7: Use of pharmacologic cessation aids • D23 b, c, e, f: Health-related concerns motivating quit attempts • G2 – 14: Perceptions about health effects of smoking • J4 – 10: Awareness of antismoking ads • J12 – 27: Awareness of tobacco advertising and promotion • J33 – 47: Confirmed awareness of and reaction to specific ads • J54: Awareness of efforts by tobacco companies to keep smokers addicted • K5: Support of the CIAA • K18, 19: Likelihood of visiting bars and restaurants after CIAA goes into effect
Youth Tobacco Survey	<ul style="list-style-type: none"> • Q7 – 13: General tobacco use measures • Q49 – 51, 82: Openness to smoking • Q52, 59: Belief that young people who smoke have more friends or look cool • Q53: Belief that not smoking is a way to express independence • Q54, 56, 57: Beliefs about cigarette companies • Q58: Beliefs about SHS • Q68 – 70: Awareness of antismoking messages • Q71 – 74: Awareness of smoking advertisements or promotions • Q77, 78: Owning, using, or wearing something that has a tobacco company name or picture on it
Community Partner activity report (including Reality Check activities)	<ul style="list-style-type: none"> • Strategies developed to reduce tobacco use initiation • Number of communities where educational workshop and materials are delivered • Number meetings held with legislators/decision makers • Amount of tobacco promotions and discounts advertised at local retailers • Number of ordinances proposed and debated in local jurisdictions • Percentage of retailers assessed by partners
Policy Reports	<ul style="list-style-type: none"> • New policies are enacted to reduce promotions and discounts advertised at retailers
Media Contractor Reports	<ul style="list-style-type: none"> • Media plan and materials developed • Number of media spots placed • Reach of media campaign

- Progress toward implementing local assessments of retail advertising and promotions
- Number of meetings with local partners
- List of local partners and community members attending meetings
- Number of activities conducted (e.g., Hollywood Initiative II)
- Intended audience for planned activities, resources and campaigns

Community-based Study/Structured Interviews. To determine the extent to which program plan activities are being implemented in communities and to gather detailed information about reactions to program components among community members and stakeholders, a qualitative community-based study is proposed. This study would gain in-depth information from carefully selected communities that would add context to the quantitative findings from other data collection methods. Interviews with stakeholders and owners of retail establishments would assess their level of knowledge gained by educational sessions, materials, and the media campaign.

Youth Telephone Survey with Longitudinal Component. To gain a detailed understanding of what programmatic activities youth are exposed to, including price increases, smoking bans in work and public places, smoke-free home and car policies, media campaigns, community-based activities, and efforts to curb smoking in the movies, we recommend supplementing the YTS with a telephone survey that would include a longitudinal component. Such a survey would help isolate the effects of the TCP on youth smoking initiation and progression to more regular smoking. This study would assess key knowledge, attitudinal, and behavioral constructs related to youth smoking. Of particular interest would be youth awareness of, and reaction to, tobacco-related media and community education activities.

This study would measure beliefs and attitudes that correspond to specific campaign messages. For example, if the paid media campaign focuses on the promotion of tobacco use in movies, a series of items that capture the target population's knowledge and attitudes about the practice and support for restrictions would be added. Ideally, belief items should also address the content of specific advertisements. For instance, an item could be included to assess agreement with the statement "cigarette companies try to get young people to start smoking to replace smoker's who quit or die" to evaluate the effect of countermarketing activities and events that focus on the tobacco industry's deceptive marketing practices toward teens.

The current primary youth survey, the YTS, includes only a limited number of items assessing awareness of antitobacco campaigns and tobacco advertising and promotion. Additionally, the YTS is a self-administered survey that does not allow for the probing necessary to measure confirmed awareness and confirmed theme comprehension of specific antitobacco ads or messages. In general, confirmed awareness measures most accurately assess actual awareness of ads.

The media campaign and local activities will likely change throughout the course of the program. By measuring awareness of, and reaction to, specific media and marketing activities and events,

the evaluators will be able to determine the type of message that the target audience is most “receptive” to. Data from these measures can be associated with demographic data and belief, attitudinal, and behavioral intention measures to explore the differential impact of these ads on various populations and on a range of outcomes. Additionally, the longitudinal nature of this survey will allow for an investigation of changes over time and cumulative effects of exposure to program components.

News Media Coverage Tracking. One useful measure of the impact of antitobacco activities and media campaigns is the amount of media coverage generated from these events. It is proposed that a news tracking system be implemented to track the number and type of news stories associated with specific events, letter writing campaigns, and so on. News clipping services (described below) can capture stories in local, regional, and statewide newspapers and other media. Tobacco-related stories can be captured with keyword searches and then systematically coded for use in analyses.

Develop Protocols for Measuring Retail Advertising and Promotions and Event Sponsorships. To adequately assess progress toward objectives 2C and 2D, it will be necessary to develop protocols that can be used by the Community Partners to capture the extent of tobacco sponsorships and retail advertising and promotions systematically. In addition, it may be worthwhile to supplement these activities with an independent measurement by RTI or trained professionals (e.g., SPAR/Burgoyne, IEG).

Modify ATS. To more fully measure the impact of TCP program components on adults, additional measures of the following are proposed:

- Exposure to New York’s media campaign
- Awareness of tobacco sponsorship and promotion at local events (i.e., sporting, cultural, community events)
- Support for policies restricting tobacco sponsorship and promotion
- Awareness of tobacco promotion in movies, art, entertainment (added to ATS, Q4)
- Beliefs related to tobacco promotion in movies, art, entertainment (added to ATS, Q4)

Modify YTS. The YTS can feasibly be modified to better assess outcomes specifically related to the New York TCP. The following are some specific areas for measurement that are proposed for inclusion on future YTS questionnaires:

- Perceptions regarding New York’s CIAA
- Awareness of tobacco sponsorship at local events
- Awareness of tobacco promotion in movies, art, entertainment
- Awareness of price of cigarettes

Goal 3: Promote Cessation from Tobacco Use

Program Objectives, Description, and Actors with Major Responsibilities. According to the TCP's strategic plan, the "implementation of effective strategies to promote cessation from tobacco use is the single most important investment for a tobacco control program to achieve near-term savings in the cost of medical care to treat tobacco-caused diseases and reductions in the number of tobacco-caused illnesses and deaths." The primary thrust of the objectives and activities targeting this goal is to expand opportunities to motivate smokers to quit and to increase utilization of current cessation services and support. As the NYSDOH notes in its Tobacco Use Prevention and Control 2003 Progress Report: "The strategy and responsibility of the Tobacco Control Program is to provide the policy, media and community pressures that move all smokers along the cessation continuum to eventual cessation success, and, for those who need assistance quitting smoking, to provide the services and support that will enhance the likelihood of a successful quit attempt. Proven strategies like telephone counseling and support (Quitlines) and reducing the cost of cessation to smokers (Medicaid coverage of cessation medication) help to assure that smokers who want to quit will have the tools to do so successfully" (p. 10-11).

The specific programmatic objectives related to this goal are as follows:

1. Increase the number of health care provider organizations that have a system in place to implement the Preventive Services Task Force clinical guidelines for cessation.
2. Increase the number of Medicaid recipients who access pharmacotherapy for smoking cessation through the Medicaid program.
3. Increase the number of health plans that provide coverage of evidence-based treatment for nicotine dependence.
4. Increase the number of non-Medicaid eligible low-income tobacco users who receive free or reduced-priced pharmacotherapy from the TCP to support a cessation attempt.
5. Increase access to cessation counseling and services.

The TCP will increase implementation and use of tobacco use screening and assessment systems within Health Care Provider Organizations (HCPOs) by funding cessation centers across the state to provide training, technical assistance, and follow-up to HCPOs to implement these systems. The TCP will also work to develop a more systematic referral of patients from HCPOs to the New York State Smokers Quitline; the latter will add a responsibility for enhanced counseling of these patients.

The TCP will work to increase the use of pharmacotherapy among Medicaid recipients who smoke by promoting the Medicaid benefit directly and through Community Partners; the Quitline; local pharmacies; and numerous state, regional, and local agencies. Increasing the access of non-Medicaid-eligible low-income tobacco users to pharmacotherapy will involve funding cessation providers to provide reduced-price or free pharmacotherapy.

The TCP will work with the New York Health Plan Association and other health insurance plans to demonstrate the need for and feasibility of offering cessation services and support, including

pharmacotherapy, as a covered benefit. Finally, the TCP will develop several strategies to more effectively promote the Quitline and local cessation providers.

The primary role of Community Partners—primarily cessation centers—will be to enhance, at the local level, the TCP efforts to develop and promote cessation systems and tools. Community Partners will interact with local HCPOs, providing cessation referral information (e.g., to the Quitline and to local cessation providers) and mini-grants to implement better clinical cessation practices. Community Partners will use media and other promotional materials to increase local awareness of cessation service availability for various categories of potential users. Community Partners will continue to maintain and disseminate updated local cessation service directories.

The New York State Quitline has an important role in determining how best to facilitate and serve referrals from various local sources and to enhance its service by providing information to Medicaid recipients on the Medicaid program benefit and by providing free or reduced-cost pharmacotherapy to non-Medicaid-eligible but low-income tobacco users.

Evaluating and Monitoring Progress toward Objectives. Extensive information is available from the ATS to measure intermediate and long-term indicators of program impact (detailed in Table 2-5), such as the frequency of quit attempts; cessation strategies; the use of nicotine replacement therapy and other medications; support for cessation through the workplace, from health care providers and others; and motivations and intentions to quit. In addition, follow-up surveys by RPCI determine how many of the smokers who contacted the Quitline within the past year have stopped smoking (with the primary dependent variable the 7-day nonsmoking prevalence). The survey also collected some information on methods used to stop smoking and satisfaction with the Quitline service.

Current reports for the Quitline by RPCI contain several useful process data points, including (1) number of callers choosing to speak with a Quitline counselor who provided stop-smoking counseling and information on local programs, (2) number leaving a voice mail message for a free stop-smoking packet to be mailed, (3) number choosing to listen to the taped message library, and (4) number leaving a message requesting that a counselor call them back. Survey data collected through the Quitline include demographics (race/ethnicity, education, city or town of residence), source of referral, an indicator of whether the consumer made a previous Quitline call, smoking history, cigarette type (i.e., full-flavor, light, ultralight, and menthol/nonmenthol), previous quit methods, and insurance coverage.

Reports by the Office of Medicaid provide counts of the number of Medicaid recipients who access pharmacotherapy for smoking cessation through the Medicaid program.

The ultimate success of program efforts to promote cessation from tobacco use depend on shorter-term changes in awareness of cessation services; changes in awareness of specific events and activities that promote cessation services; and changes in knowledge, attitudes, and beliefs about using cessation services. Proposed measures of short- and intermediate-term outcomes are both

Table 2-5. Goal 3: Data Sources and Specific Measures

Data Source	Specific Items
Adult Tobacco Survey, 2003-Quarter 3	<p>Duration and Frequency of Quit Attempts</p> <p>During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?</p> <p>How many times during the past 12 months have you stopped smoking for 1 day or longer because you were trying to quit smoking?</p> <p>During the past 12 months, what was the longest length of time you stopped smoking because you were trying to quit smoking?</p> <p>About how long has it been since you last smoked cigarettes even a puff?</p> <p>Cessation Strategies</p> <p>When you quit smoking/the last time you tried to quit smoking, did you use any of the following methods or strategies to try to quit:</p> <ul style="list-style-type: none"> Stopping by gradually cutting back on cigarettes? Switching to chewing tobacco, snuff, cigars or pipes? Switching to “lights” in order to quit? Giving up cigarettes all at once? Quit with a friend, relative or acquaintance? <p>When you quit smoking did you/The last time you tried to quit smoking did you:</p> <ul style="list-style-type: none"> Attend a stop-smoking clinic, cessation class, or support group? Get counseling to help you stop smoking? Get help from a free telephone Quitline? Get help from an Internet web site? Get help or support from friends or family? Use books, pamphlets, videos, or other materials? Use acupuncture or hypnosis? Use herbal remedy? Use Quest—reduced-nicotine cigarettes? Any other treatment [specify] <p>Thinking of the strategies that you have tried to use to help you quit smoking cigarettes in the past 12 months, which would you say was the most helpful to you?</p> <p>NRT and Medication</p> <p>When you quit smoking/The last time you tried to quit smoking, did you use the nicotine patch, nicotine gum, or any other medication to help you quit?</p> <p>Did you use:</p> <ul style="list-style-type: none"> A nicotine gum? A nicotine patch? Nicotine lozenges? A nicotine nasal spray?

(continued)

Table 2-5. Goal 3: Data Sources and Specific Measures (continued)

Data Source	Specific Items
Adult Tobacco Survey, 2003-Quarter 3 (continued)	<p>A nicotine inhaler? Buproprion, Zyban or Wellbutriin? Other [specify]</p> <p>Health Care Coverage/Support for Treatment</p> <p>Did your health insurance cover all or part of the cost of any of the medications used to help you quit smoking?</p> <p>Did your health insurance cover all or part of the cost of any of the counseling used to help you quit smoking?</p> <p>In the past 12 months, did you receive free nicotine patches from any program sponsored in your community?</p> <p>How important was the offer of the free supply of nicotine patches to get you to think about stopping smoking?</p> <p>Other than nicotine patches, did you receive for free any of the medications that you used to help you quit smoking?</p> <p>Within the past 12 months, has your employer offered any stop smoking program or any other help to employees who want to quit smoking?</p> <p>Health Care Providers</p> <p>In the past 12 months, have you seen a doctor, nurse, or other health professional to get any kind of care for yourself?</p> <p>During the past 12 months, did any doctor, nurse or health professional ask if you smoke?</p> <p>In the past 12 months, has a doctor, nurse, or other health professional advised you to quit smoking?</p> <p>When a doctor, nurse, or other health professional advised you to quit smoking, did he/she do any of the following?</p> <p>Prescribe or recommend a nicotine patch, nicotine gum, nasal spray, an inhaler, or pills such as Zyban?</p> <p>Suggest that you set a specific date to stop smoking?</p> <p>Suggest that you use a smoking cessation class, program, or counseling?</p> <p>Suggest you call a telephone Quitline?</p> <p>Provide you with booklets, videos, or other materials to help you quit smoking on your own?</p> <p>Schedule a follow-up visit to discuss your progress?</p> <p>Motivation</p> <p>How much do you want to quit smoking?</p> <p>I am going to read a list of some of the reasons that people give for trying to quit smoking. Please tell me if that reason was important to you during your most recent quit attempt.</p> <p>The cost of cigarettes</p> <p>Concern for what it is presently doing to your health</p>

(continued)

Table 2-5. Goal 3: Data Sources and Specific Measures (continued)

Data Source	Specific Items
Adult Tobacco Survey, 2003-Quarter 3 (continued)	<p>Concern for what it could do to your health in the future</p> <p>Because smoking is prohibited in most buildings</p> <p>The effect your smoking has on other people's health</p> <p>Encouragement from your family and friends</p> <p>Setting a good example for your children</p> <p>Your doctor or dentist recommended it</p> <p>Any other reason? [specify]</p> <p>Are you seriously considering stopping smoking within the next six months?</p> <p>Are you planning to stop smoking within the next 30 days?</p> <p>If you decided to give up smoking altogether in the next 12 months, how likely do you think you would be to succeed?</p>
Annual Office of Medicaid Reports on Program Usage	<p>Number of Medicaid recipients who access pharmacotherapy through the Medicaid Program. (NOTE: Additional data which would be useful, and which may be available, includes: (a) expenditures on cessation benefits; (b) expenditures on smoking-related illnesses)</p>
Quitline Baseline and FUP Survey Reports + Quitline Program Records	<p>Did you receive (various Quitline materials) that were sent to you? Did you avail yourself of any of (various Quitline services—including information on NRT availability)?</p> <p>Did you ask for (and receive) a list of local Cessation Providers? If yes, did you try to contact any of the programs? If yes, did you go to any of the programs?</p> <p>By whom were you referred to the Quitline?</p> <p>Do you want to stop smoking? Why do you want to stop smoking? Are you planning to stop smoking within the next 30 days? What things are you planning to do to help you stay off cigarettes?</p> <p>Do you have medical insurance? What type of medical insurance do you have? (Reports on various levels / types of counseling services provided by Quitline counselors, and whether recipients list Medicaid as their insurer)</p> <p>(Reports on provision of information on Medicaid NRT benefit to Medicaid providers)</p> <p>(Reports on number of free-or-reduced-cost pharmacotherapy provided)</p>
BRFSS	<p>During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking? (2001, 2002, and 2003 question)</p> <p>(Several other BRFSS questions have addressed other cessation topics in years prior to 2003)</p>
NYTS	<p>Do you want to stop smoking cigarettes?</p> <p>Are you seriously thinking about quitting smoking?</p> <p>During the past 12 months, how many times have you tried to quit smoking for at least a day?</p> <p>When you last tried to quit, how long did you stay off cigarettes?</p> <p>Has someone in an MD or dentist's office talked to you about the dangers of tobacco use in the past 12 months?</p> <p>In the past 12 months, did you do any of the following to help you stop smoking?</p>

quantitative and qualitative in nature, allowing for a comprehensive understanding of program effects. The lists below include general examples of measures that should be monitored to inform the process and to measure the success of this program effort.

► Short-term Outcomes

- ✓ Percentage of grantees who report successful system implementation (in required Quarterly Report); unsuccessful or nonapplicants report barriers
- ✓ Number of HCPOs who enter into a formal agreement with the New York State Quitline (HCPO survey)
- ✓ Number of enhanced proactive counseling services provided by the New York State Quitline (program records)
- ✓ TCP survey results provide baseline rates of Quitline referrals from HCPOs and lists of nonactive HCPOs
- ✓ Quitline reports number of materials distributed to providers or Medicaid recipients, by county
- ✓ Cessation centers report on activity levels of pharmacists and community organizations in their distribution of materials on Medicaid pharmacotherapy benefits
- ✓ Quitline reports shows increase in number of callers to whom information on Medicaid benefit was provided who also report that Medicaid is their insurer
- ✓ Baseline number of health plans providing coverage reported
- ✓ Baseline number of employers choosing plans providing coverage of cessation benefits established
- ✓ Funded CesServ providers report quarterly on number of free-or-reduced-price pharmacotherapy provided and on any problems with program (initial report providing baseline)
- ✓ Baseline ATS: Where did you hear about the New York State Smokers' Quitline?
- ✓ Quitline shows increased number of callers reporting awareness of Quitline through (specific) media (e.g., "TV")

► Intermediate-term Outcomes

- ✓ Implementation of TCP grant-supported program by HCPO grantees (from program records), showing increased use of tobacco use screening and assessment systems consistent with the Clinical Practice Guidelines
- ✓ Number of Medicaid recipients who access pharmacotherapy through the Medicaid program (Office of Medicaid)
- ✓ Number of New York State residents who report being asked about tobacco use by their health care provider (HCP) or being advised to quit by their HCP
- ✓ Number of Medicaid providers who report knowledge of, education of Medicaid patients on, and prescriptions written for, cessation pharmacotherapy
- ✓ Quitline reports of number of callers to whom information on Medicaid benefit was provided who also reported that Medicaid is their insurer
- ✓ Number of health plans providing coverage
- ✓ Number of persons saying that health insurance covered all or part of their cessation medication costs or counseling costs

- ✓ Number of adult smokers who report getting cessation help from a free telephone Quitline (ATS)
- ✓ Number of free-or-reduced-cost cessation pharmacotherapy provided by the Quitline
- ✓ Attendance at a stop-smoking clinic or cessation support group (ATS)
- ✓ Number of smokers planning to stop smoking within next 30 days (ATS)
- Long-term Outcomes
 - ✓ Number of smokers who have quit successfully within last year (ATS)
 - ✓ Number of smokers who have stopped smoking for 1+ days when trying to quit (ATS)
 - ✓ Number of smokers who attempted to quit XX times (ATS)
 - ✓ Number of smokers who quit for at least XX days (ATS)
 - ✓ Number of employers/purchasers who purchase a cessation benefits rider offered by a health insurers

Existing data sources to draw on for the collection of information are documented in Table 2-5, which lists the data sources and specific measures needed to inform the evaluation of Goal 3.

Recommended Enhancements to the Surveillance and Monitoring Systems. Below, we list the indicators that are needed and not captured in current systems.

Survey of Health Care Providers. A survey of HCPs will be necessary to determine the number of HCPs implementing tobacco use screening and assessment systems consistent with Clinical Practice Guidelines. We anticipate that this survey would target physicians, for whom a reliable sampling source (the AMA Masterfile) exists. This survey should be done at baseline and then at regular intervals—we currently propose implementing such a survey in Years 2 and 4 of the evaluation. As noted in the Goal 3 matrix, it may also be possible to collect data from physicians who are Medicaid providers as part of this HCP survey, thereby collecting data on awareness, attitudes toward, and use of the Medicaid pharmacotherapy benefit.

Health Care Provider Organization Survey. In addition to physicians, we would ideally assess what data are available from HCPOs to determine the percentage of such organizations that have implemented tobacco use screening and assessment systems consistent with the Clinical Practice Guidelines for treating tobacco use and dependence, the number of patients to whom such counseling services have been provided, and the number of patients who have been referred to the New York State Quitline for further counseling. We are open to suggestions on how to capture data from HCPOs.

Survey of Health Care Insurance Providers. A survey of health care insurance providers would establish a baseline for the number of plans offered, which include coverage of various types of cessation services and products, the extent of that coverage, and change over time. We will work with the New York Health Care Plan Association to determine how such data might be collected.

Employer Survey. An employer survey would allow assessment of the degree to which employers actually choose cessation benefits as part of the package they will offer employees. Rather than

developing a new survey, it may be possible to analyze data already available from the NYSDOH HeartCheck survey of worksites (and/or negotiate revisions/additions in that survey in the future) although at present the questions asked about cessation benefits do not distinguish between employer-provided and insurance plan-covered benefits.

Community Partner Monthly Reports. Local Community Partners will also submit reports that document processes related to this goal. The current Community Partner Reports will need to be enhanced to collect additional specific information, including number, type, and perceived effectiveness of outreach activities and development of outreach materials (e.g., to local organizations, such as pharmacists or Medicaid providers, that can promote cessation services); documentation of oversight of mini-grants to local HCPOs; documentation of dissemination of updated local cessation service directories; documentation of activities undertaken to promote the Quitline and local cessation services; and number, type, and perceived effectiveness of activities related to advocating for health insurance plan coverage of cessation services.

HCPO Grantee Reporting. For those HCPOs that will receive grant support (either from the TCP directly or through a mini-grant mechanism from a local cessation center), process objectives will be monitored through a reporting requirement to the cessation centers collecting information on implementation of the program. These measures might include

- implementation of new systems for tobacco use screening, assessment, and counseling;
- facilitators and barriers to implementation and ways barriers were overcome; and
- number of patients to whom services were provided.

Community-based Study/Structured Interviews. To determine the extent to which program plan activities are being implemented in communities and to gather detailed information about reactions to program components among stakeholders, a qualitative community-based study is proposed. This study would gain in-depth information from carefully selected communities that would add context to the quantitative findings from other data collection methods.

Interview or focus groups would focus on Community Partner activities targeting this goal. For example:

- What are barriers and facilitators for Community Partner's in recruiting HCPOs to apply for mini-grants to develop and implement a system that follows the Clinical Guidelines? What were barriers and facilitators for HCPOs in implementing a system, and to what extent did the Community Partner have resources, or access to resources, that could overcome barriers?
- What activities was the Community Partner able to carry out to promote the Quitline and other smoking cessation resources among other local HCPOs? What were features of successful and unsuccessful outreach?
- What activities were Community Partners able to carry out to promote the Medicaid pharmacotherapy benefit to Medicaid providers? What were features of successful and unsuccessful outreach?

- What types of outreach were conducted by Community Partners in the effort to persuade health insurance plans to add cessation services to their coverage? Which were successful, and which were unsuccessful?

TCP Monitoring. The TCP itself will need to collect process information on its implementation of media plans and provision of materials to local Community Partners and to the Quitline, as well as information documenting its collaboration with various stakeholders around the issues of health insurance plan change (to increase the number of health plans that provide coverage of treatment for nicotine dependence), development and implementation of more effective tobacco product warning labels, and a policy to insure that the Quitline telephone number is printed on the New York State cigarette excise tax stamp.

Quitline Data. The New York State Quitline program records will provide several process indicators and will be augmented as necessary to include such indicators as number of enhanced proactive counseling services provided, information on source of patient referral to the Quitline, and number of free pharmacotherapy kits provided.

Medicaid. From Medicaid providers, additional information is needed on knowledge/awareness of, education of patients on, and prescriptions written for, pharmacotherapy for Medicaid recipients. As noted above, these data may best be collected through the proposed HCP (physician) survey.

Ideally, we would also measure Medicaid beneficiary awareness of Medicaid pharmacotherapy benefits. A possible mechanism is through expansion of the RPCI New York City and Erie County survey project, which interviewed Medicaid clients who volunteered to be interviewed while waiting to re-register with the Medicaid office. The Quitline initial intake survey does ask callers what kind of health insurance the caller has, so it will be possible to track cessation behavior for individuals indicating they have Medicaid coverage. However, neither the baseline nor current follow-up surveys ask whether specific cessation services or products were covered by the caller's health insurance—it may be desirable for such questions to be added to Quitline interviews.

Adult Tobacco Survey. The ATS currently addresses many intermediate and long-term indicators focusing on cessation issues. However, there are not currently questions that address respondent awareness of local cessation-related events (e.g., Quit and Win contests) or awareness of the existence and purpose of local cessation providers (other than the respondent's "doctor, nurse, or other health professional"). We would propose to add such questions to the ATS.

Goal 4: Prevent the Initiation of Tobacco Use among Youth and Young Adults

Program Objectives, Description, and Actors with Major Responsibilities. Goal 4 is to prevent the initiation of tobacco use among youth and young adults. The philosophy of the TCP is that reductions in smoking initiation among youth and young adults occurs mostly within a broader community context. Reduced initiation among youth will follow from achievements in other program goals, such as reducing the social acceptability of tobacco use, reducing the prevalence of adult smoking, reducing exposure to SHS, increasing smoking cessation, and increasing the

average price of cigarettes through taxes and restrictions on promotions. Although youth initiation will be affected by other program activities, TCP activities directed toward Goal 4 focus on two key areas that are directly relevant to youth smoking: (1) increasing the number of local jurisdictions that impose a cigarette excise tax and increasing the level of cigarette excise taxes in general, and (2) increasing retailer compliance with laws restricting youth access to tobacco products.

New York State currently has one of the highest cigarette tax rates in the nation, at \$1.50 per pack. In addition, New York City has imposed an additional \$1.50 per pack tax on cigarettes, bringing the combined state and city tax to \$3.00 per pack in New York City. Although wholesalers are legally responsible for paying the cigarette tax (through the purchase of tax stamps, which must be placed on cigarette packages before sale), the cost of the tax is very often passed on to the smoker in the form of higher prices. A large body of economic evidence demonstrates that increases in cigarette prices result in less smoking by youth and adults (Chaloupka and Warner, 1999; Farrelly, Pechacek, and Chaloupka, 2003). The TCP plays a key role in directing Community Partners and the media contractor to increase public awareness and support for the passage of new legislation to increase local tobacco excise taxes.

The Adolescent Tobacco Use Prevention Act (ATUPA) is a New York State law that prohibits retailers from selling tobacco products to minors, among many other things (e.g., the shipping ["Internet"] law, discussed elsewhere, is part of ATUPA). Preventing youth access to cigarettes is important because several factors suggest that reduced commercial availability of cigarettes to minors may result in lower prevalence of smoking among youth and delayed onset of initiation (IOM, 1994; USDHHS, 2000). These factors include the importance of commercial sources for obtaining cigarettes, the ease with which many youth can obtain cigarettes from commercial sources, and reductions in commercial availability being associated with increased enforcement of youth access restrictions.

The Tobacco Enforcement Program within the NYSDOH's Bureau of Community Sanitation and Food Protection is required to inspect every registered tobacco retailer at least once per year. Many compliance checks are carried out using underage teens who attempt to purchase cigarettes. Retailers who sell to such underage teens are cited and fined. While conducting site visits and educating retailers, Centers for Environmental Health (CEH) assesses compliance with the self-service display ban and promotes posting the New York State Smokers' Quitline number near all tobacco displays and regulatory signs. All of these activities combined are intended to deter youth and young adults from initiating tobacco use and to enforce existing laws restricting the sale of tobacco to minors.

The specific programmatic objectives for this goal are to

- increase the unit price of cigarettes sold in New York State,
- increase the number of jurisdictions that levy their own local cigarette excise taxes and increase the amount of each local tobacco excise tax,

- increase the number of jurisdictions with a 5 percent or less illegal sales rate to minors, and
- reduce the statewide retailer noncompliance with sales to minors law rate to 5 percent or less.

Evaluating and Monitoring Progress toward Objectives. By denormalizing and deglamorizing tobacco use, changing community and social norms about tobacco use, and discouraging youth from initiating tobacco use, the TCP seeks to ultimately reduce the prevalence of smoking among youth and young adults. There are a number of measures to monitor the long-term impact of these efforts, but it is also important to be attentive to short-term and intermediate outcomes as they provide timely feedback on the progress toward long-term outcomes. These measures are both quantitative and qualitative in nature to provide a comprehensive understanding and effectiveness of the steps taken to achieve the long-term goals. The list below includes general examples of measures that are important to monitor as they inform the process and eventual success of preventing youth and young adult initiation.

- Short-term Outcomes
 - ✓ The level of retailers' compliance with self-service display ban and posting Quitline information (baseline assessment)
 - ✓ The number of working partnerships established with other agencies (including the Department of Tax and Finance among others) to promote the passage of excise taxes
 - ✓ Strategies implemented with partners to raise awareness about tobacco use and the role of excise taxes
 - ✓ The level of awareness among legislators, retailers, and community members regarding the impact increased taxes has on tobacco use
 - ✓ The amount of new legislation proposed and debate in the community surrounding the issue of increased excise taxes
- Intermediate-term Outcomes
 - ✓ The level of community activities and communications with law makers to pass legislation to levy/increase excise taxes
 - ✓ How public awareness has changed regarding the impact higher excise taxes have on reducing smoking prevalence
 - ✓ Among those who attempt to purchase tobacco, the percentage of youth who are asked to show proof of age
- Long-term Outcomes
 - ✓ The percentage of youth who have never tried a cigarette
 - ✓ The percentage of youth who currently smoke cigarettes on one or more of the past 30 days
 - ✓ The percentage of adults aged 18 to 24 years who smoke cigarettes daily
 - ✓ The percentage of local retailers who are in compliance with sales to minor laws and self service display bans
 - ✓ The number of jurisdictions and level of excise taxes levied

A number of existing data sources are available from which to collect information detailed above. Table 2-6 illustrates the data sources and specific measures currently available to inform the evaluation of Goal 4.

Recommended Enhancements to the Surveillance and Monitoring Systems. To gather all the data required to fully evaluate Goal 4, we recommend implementing two additional data sources and modifying the ATS, YTS, and community coalition reports.

Community Partner Monthly Reports. Community Partner monthly reports will be modified to provide more specific information, such as materials developed and the number distributed as part of events and activities, as well as a count of the number of people who were reached at activities and events. In addition, community coalition special reports will be written (when applicable) and submitted to the TCP (i.e., results of a community assessment conducted by Community Partners will be written up and submitted to TCP in a special report).

Community-based Study/Structured Interviews. Structured interviews with stakeholders and legislators will be conducted to assess their level of knowledge gained by educational sessions, materials, and the media campaign. Structured interviews will also be used to determine the level of support among stakeholders and legislators for an increase in excise taxes. Structured interviews will provide detailed information on (1) whether key stakeholders and legislators

understand the relationship between excise taxes and tobacco use, (2) how effective the educational sessions and media messages were in conveying the key messages, and (3) determining if there are any misunderstandings about the role of excise taxes in prevention efforts. Qualitative process data from these interviews will be used to modify the educational sessions, materials, and the media campaign and direct efforts toward overcoming barriers for increased excise taxes.

Develop a News Media Tracking System. Develop a news media tracking and coding system to provide a reliable measure of the discussion and activities regarding the debate over increased excise taxes at the local level.

Modify ATS. Add attitudinal questions about support for increasing excise taxes.

Modify YTS. Ask about the role of price in their decision to/not smoke. Ask if price is a factor in their intention to quit.

Table 2-6. Goal 4: Data Sources and Specific Measures

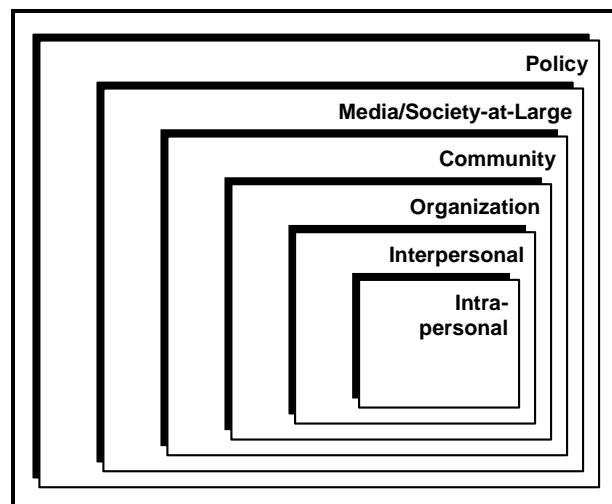
Data Source	Specific Items
Adult Tobacco Survey, 2003-Quarter 3	<ul style="list-style-type: none"> • B2: Do you now smoke cigarettes every day, some days, or not at all? • D23a: Reported quit attempts because of cost • Price currently pay for cigarettes (2003 Quarter 4 addition)
Youth Tobacco Survey	<ul style="list-style-type: none"> • Q12: Prevalence of cigarette use by middle and high school students • Q7: Number of middle and high school students who have never tried cigarettes • Q19: How much youth paid for a pack of cigarettes • Q20: Number of youth asked to show proof of ID • Q21: Number of sales to minors refused due to age
Community Partner Activity Report (including Reality Check activities)	<ul style="list-style-type: none"> • Strategies developed to increase community support for increased taxes • Number of communities where educational workshop and materials are delivered • Number of meetings held with legislators • Amount of tobacco promotions and discounts advertised at local retailers • Partners testify before legislators • Number of ordinances proposed and debated in local jurisdictions • Community assessment reports show retailer compliance with self-service display ban and signage for Quitline • Percentage of retailers assessed by partners
Policy Reports	<ul style="list-style-type: none"> • New policies are enacted to reduce promotions and discounts advertised at retailers • New policies reduce untaxed sales of cigarettes
New York State Tax Department	<ul style="list-style-type: none"> • Number jurisdictions that levy their own excise taxes • Tax increases over time by jurisdiction
Bureau of Community Sanitation and Food Protection Annual Reports	<ul style="list-style-type: none"> • Rates of sales to minors by jurisdiction • Number of complaints • Number of enforcement actions • Number of registered retailers • Dollar amount of fines collected • Number of tobacco-related fires

3. SUMMARY OF RECOMMENDED ENHANCEMENTS TO THE EXISTING SURVEILLANCE AND PROGRAM MONITORING SYSTEMS

Based on the findings from the evaluation planning exercise described above, we now make cross-cutting recommendations for enhancements to the surveillance and monitoring systems. To further inform our recommendations, we have relied on ecological models (e.g., Glanz, Lewis, and Rimer, 1997). Figure 3-1 helps guide the collection of data needed to understand the myriad influences that can affect tobacco use and the methods used to evaluate the program.

These influences work in combination to affect an individual's knowledge, attitudes, beliefs, and behavior (intrapersonal). The methods that we will use to understand the effectiveness of the TCP components include multilevel or hierarchical models that can account for how multiple levels of environmental influences can directly impact behavior, either independently (e.g., a parent's advice not to smoke) or in combination with another level(s) of influence (e.g., a parent's advice not to smoke, a media campaign targeting social norms of smoking, and/or school-based prevention lessons). These methods are described in greater detail in Section 4. The following recommendations are not rank ordered.

Figure 3-1. Typology of Influences on Tobacco Use



3.1 Recommendation 1: Conduct Health Care Provider Survey

As noted in Section 2, to evaluate many of the objectives under Goal 3, it is necessary to have information about HCPs' knowledge, attitudes, intentions, and practices as they relate to addressing tobacco. Because there is currently no statewide system to gather this information, we recommend a representative survey of HCPs in New York in Years 2 and 4 of the evaluation with a targeted response rate of 65 to 70 percent. Below, we describe our process for surveying physicians. However, working with the NYSDOH, we will explore methods to survey HCPs more broadly, including physicians, nurses, dentists, dental hygienists, nurse practitioners, physicians assistants, and mental health and substance abuse counselors. We will have to work collaboratively to develop appropriate contact lists for these various types of HCPs. There is also interest in identifying methods to identify HCPs who serve Medicaid beneficiaries. Another possible data limitation that we do not currently address is gathering data on HCPOs. Although we can ask physicians to report on HCPO policies, recommended practices, training, and other

standard procedures for treating tobacco dependence, we currently do not ask HCPOs' administrators. This is another potential complementary strategy. The following subsections address the specific tasks that relate to this evaluation activity.

As a first step to developing a survey, we recommend gathering examples of available surveys from CDC and other relevant groups. We will then conduct a targeted literature review to help inform the development of this survey. Other specific tasks described below include developing a protocol for the survey, obtaining Institutional Review Board (IRB) approval, collecting and weighting the data, and providing summary reports for each wave of the survey.

3.1.1 Perform Literature Review

To gain an understanding of physicians' knowledge, attitudes, and behavior as they relate to tobacco, we will conduct a literature review with the goal of informing the development of the instrument. The review will include

- published, English literature integrating demographic, behavioral, attitudinal, and situational characteristics of physicians as they relate to treatment of tobacco and tobacco prevention; and
- literature on the exploration of primary physicians' use PHS guidelines.

We will use web search engines to access on-line information for the literature review. RTI will conduct searches of databases, such as MEDLINE, PSYCHINFO, PUBMED, JSTOR, Science Direct, and Web of Science, as well as RTI's Information Technology Services resources (ITS), to download articles and to search extensively for them.

3.1.2 Draft Survey Protocol

The protocol will address the survey instrument, validity testing of the instrument, sample design, sample size, data collection methods (including quality control procedures), respondent incentives, and other items necessary for IRB.

Develop the Survey Instrument

Drawing from extant questionnaires from CDC, Health Plan Employer Data and Information Set (HEDIS), and individual investigators and our own knowledge, we will draft a questionnaire for review by the TCP. Modifications of existing questionnaires will be guided by the literature review described above. We estimate that the final questionnaire will consist of 4 to 6 pages and take approximately 15 minutes by telephone. Topical areas that we will consider include knowledge, attitudes, beliefs, practices, demographics, and professional characteristics.

As part of the questionnaire development process, RTI will conduct an assessment of the instrument's validity. Specifically, we will apply the Question Appraisal System (QAS), developed by Dr. Gordon Willis, a leading expert in issues of questionnaire design, pretesting, and critical evaluation. The QAS will be used to identify design flaws that constitute threats to instrument validity. The QAS is a checklist-based system that leads the reviewer to systematically evaluate multiple aspects of each question, one at a time, and to identify specific problems with question

structure, format, or logic. For example, the system determines where different parts of a question are conflicting, where overly technical or vague terms exist, where reference periods are missing or unrealistic, and where response categories are either inappropriate or not well integrated with the question asked. To further ensure the validity and reliability of the instrument, RTI will conduct cognitive interviews with up to 10 local physicians (or in New York State if preferred). Based on the results of the cognitive interviews, and with input from NYSDOH, RTI will revise and finalize the instrument.

Sampling

We recommend using the AMA Masterfile as the primary source of physicians. Other lists may also be useful, such as those from New York State specific license or board associations. The AMA Masterfile contains information on all physicians, members and nonmembers, who enter medical school or residencies within the United States, as well as data on physicians who trained abroad and practice in the United States. The Masterfile contains a broad range of data about each physician's contact and demographic information, including gender, race/ethnicity, and birth date. It contains detailed information not just on a physician's trained specialty but on his or her current practice specialty.

Survey Strata

We will also have to decide on the strata of interest. One possibility is to stratify by region of the state or media market. Within each stratum, potential survey participants will be selected using simple random sampling. Table 3-1 shows potential designs and confidence intervals for three different response rates, assuming a minimum stratum sample size of 100. For a two-level stratification by race/ethnicity and an 80 percent response rate, the widest 95 percent confidence interval (i.e., most conservative) for an individual stratum would range from 0.455 to 0.555. The widest confidence interval for a proportion will always occur at an estimated proportion of 0.5. Estimates incorporating multiple strata or estimates for proportions that differ from 0.5 in either direction will have comparatively narrower confidence intervals. Even an eight-level stratification scheme results in reasonable confidence intervals, even if the response rate is as low as 60 percent.

3.1.3 Collect and Process Data

Data Collection

To maximize our ability to achieve a target response rate of 65 to 70 percent, we are proposing a mixed mode data collection approach that includes a mail survey with a web option and telephone follow-up. We feel that such an approach is an effective way of encouraging responses, particularly from busy professionals. Offering mail, web, and telephone options allows the physician the flexibility of choosing the mode of response that is most convenient for him or her.

Table 3-1. Minimum Stratum Sample Size for Potential Sampling Designs

Strata Definition (levels)	80% Response		70% Response		60% Response	
	Minimum N per Stratum	Widest 95% CI	Minimum N per Stratum	Widest 95% CI	Minimum N per Stratum	Widest 95% CI
New York City/ Remainder of the State (2)	320	0.445–0.555	280	0.441–0.559	240	0.437–0.563
Regions or Media Markets (8)	80	0.390–0.610	70	0.383–0.617	60	0.373–0.627

Although no single action can guarantee a high response rate, our experience suggests that using a number of techniques shown to incrementally improve response when employed together offers the best prescription for success. Our plan to reach the target response rate is to employ the following:

- Making the survey instrument as concise as possible.
- Designing the survey instrument to have a clear, attractive, and easy to complete format.
- Addressing a topic of interest to the audience in a way that demonstrates the importance of responding.
- Obtaining and promoting the endorsement of trusted and respected professional New York associations and possibly national organizations, such as the American Medical Association, American Cancer Society, American College of Physicians, American Academy of Family Physicians, and U.S. Preventive Services Task Force.
- Sending a pre-notice letter from New York State and signed by Dr. Ursula Bauer and other officials from the state to show the importance of participation and to legitimate the survey. Research has consistently shown that a pre-notice letter will improve mail survey response rates (Kanuk and Berenson, 1975; Fox and Tracy, 1986; Dillman, 1995).
- Providing a financial incentive to demonstrate that we recognize how busy they are and how much the time they take to participate is worth. The initial respondent mailing will include a \$25 incentive check.
- Conducting thorough mail follow-up activities. RTI proposes repeated questionnaire mailings, reminder cards, and a final Federal Express mailing to impress upon the physicians the importance of the survey. RTI has found a final Federal Express mailing to be highly successful on other mail surveys.
- Conducting a follow-up telephone call to nonrespondents. All sample members who do not return a completed questionnaire during the mail survey data collection period will be transferred to RTI's Telephone Internet Operations unit, where interviewers will attempt to contact the sample member and complete the interview by phone or by fax. Based on our experience with the **Kaiser Foundation Survey of Physicians**, we know that many physicians may be too busy to complete the survey when we call but will agree to respond to a faxed questionnaire within the same day.

Data Processing

All incoming mail will be delivered to the project's data receipt staff, who will sort the mail into stacks of completed questionnaires, undeliverable mail, and other. If an address correction is received for an undeliverable package, the new address will be posted in the receipt control system, and the package will be re-sent. The receipt control system will also be updated on a flow basis with status codes to correctly identify sample members as respondents, refusals, decedents, eligibles, unlocatables, and other relevant dispositions. Information summaries final disposition codes will then be included in the final methodological report.

Questionnaires will be manually edited for completeness, then entered into the project's receipt control system as "ready for scanning." We will employ optical scanning as the method of capturing data from the questionnaires. RTI uses TELEform software to perform accurate, fast, and cost-efficient data entry. Scanned surveys are interpreted by the TELEform Reader module. As Reader interprets the data on the returned forms, it identifies those that have been incorrectly completed or mismarked. These forms are then routed to the Verifier module, where they are held for manual review and correction by an optical scanning clerk. Optical scanning clerks will view questionable answers or marks that did not scan clearly and will determine the appropriate answer category. If the mark is unreadable or not neatly marked within a single answer category, then the clerk will enter the response as missing.

Weights

Once the data are collected and processed, RTI survey statisticians will calculate appropriate survey weights to provide for appropriate inference to the entire physician population. The design weights, calculated from the probability of being selected, will be adjusted to ensure appropriate population-level inference. Weights will be adjusted to account for nonresponse and to avoid extreme weights that have undue or insufficient impact on survey results.

3.1.4 Prepare Report on Survey

The collected, processed data will be combined with the computed weights in a single data file suitable for analysis. This SAS-formatted file will be delivered on CD or other requested medium along with a code book describing both the data items and their response. RTI will prepare a final methodology report that will include a description of the data collection design, procedures, and implementation; the results of production in both descriptive and tabular format; and the final response rate.

RTI will produce simple tabulations describing the weighted frequency of each of the primary responses. This brief overview of the data will provide the TCP with statewide estimates of knowledge, attitudes, and practices regarding treatment of tobacco dependence. Once the design and questionnaire are finalized, we can prepare a more detailed analysis plan.

3.2 Recommendation 2: Track News Media Coverage

In consideration of the importance of media advocacy in the TCP's strategic plan, especially with respect to Goals 1 and 2, it is important to have data sources with which to evaluate the effectiveness of these efforts. The evaluation of ASSIST pioneered efforts to track news media coverage of tobacco issues and was successful in demonstrating that coverage of tobacco issues was higher in ASSIST sites compared with non-ASSIST sites. In addition, a recent article by Finnegan and Viswanath (2002) demonstrated that efforts to draw public attention to cardiovascular health issues by concerned organizations and institutions were associated with the increase in coverage of heart disease in the 1980s.

Building off the methods and data used in the ASSIST evaluation, we propose tracking and coding coverage of tobacco control issues in New York State. Fortunately, Burrelle's Clipping Service that was used in the ASSIST evaluation has nine regional services, including one that focuses exclusively on New York State. Their services include coverage of the following publications:

- 95 daily newspapers
- 874 nondaily newspapers
- Hundreds of magazines and Internet sites
- Local television and radio news
- Network television and radio news
- Cable news and public affairs programming

Burrelle's also provides analysis, which may be an option for tracking relevant tobacco issues. Alternatively, we can train staff to code relevant articles identified by Burrelle's using keyword searches. What follows is the approach used in the ASSIST evaluation in Evans et al. (2003). Dr. W. Douglas Evans, who is now with RTI, is available to this project to help develop a specific protocol for news media coverage in New York State.

The newspaper clipping service obtained potentially relevant articles news and feature articles, letters to the editor, and editorials about tobacco control policies. The articles were identified with a three-tiered approach—the first tier included tobacco key words, the second included restriction/legislative terms, and the third included policy-related key words. Examples of key words are listed in Table 3-2.

One word from each tier had to appear in the article or headline in order for it to be clipped. In this way, no decisions about the content of the article were necessary other than to note the appearance of the key words. These criteria were not applied to single-paragraph articles, such as letters to the editor. In these cases, a key word from two of the three tiers was sufficient for selection.

Table 3-2. Examples of Key Words for Search Strategy

Tier 1 Tobacco	Tier 2 Restriction/Legislative	Tier 3 Policy-Related	
ASSIST	Ban/banned/banning	Advertising	Pharmacy
Cigarettes	Bill	Airport	Promotion
Nicotine	Law/lawsuit	Arena	Public places
Smoking	Legislation/legislative/legislator	Billboard	Restaurants
Smoke-free	Ordinance	Bowling alley	School(s)
Snuff	Policy	Buildings	Stores
Tobacco	Prohibit/prohibition	Children	Tax
	Regulation/regulatory	Coliseum	Vending machines
	Restrictions	Jail	Workplace(s)
		Mall	Youth
		Minor(s)	

Each article was then reviewed for consistency with the search criteria and relevance by trained research staff. Relevant articles were entered into a database and then coded. A code book was developed by the ASSIST Coordinating Center to provide background and instructions for coders. Each article was coded on six variables: policy type, topic code, circulation of source newspaper, type of article, front page, and origin of story. Articles that were editorial in nature were coded on a seventh variable, point of view. These variables are described in Table 3-3. Editorials, letters to the editor, and editorial cartoons were coded as either neutral, pro-tobacco-control, or antitobacco-control. Although hard news stories are theoretically neutral, biases do exist. However, assessing bias in these stories was beyond the scope and resources of the ASSIST evaluation.

We recommend customizing the approach used for ASSIST by using the key words that are important to the TCP evaluation and exploring how frequently to conduct the news media coverage and coding (e.g., one quarter per year, one week per quarter, every day).

3.3 Recommendation 3: Measure Pro-tobacco Advertising and Promotions in the Retail Environment

Goal 2 stresses the importance of reducing the amount of pro-tobacco promotions and advertising and calls for Community Partners to perform local assessments of the extent of such activities. In order to have sufficient and accurate data for the evaluation, we recommend a two-pronged strategy: (1) develop a protocol for Community Partners that is complemented by a training manual and possibly a coordinated statewide training; and (2) validate the Community Partner assessments with periodic independent assessments in selected locations, such as the proposed case study sites. This work will also build on previous work done by the Center for Tobacco Free New York. The assessments could be conducted by either the evaluation team or by an organization such as SPAR/Burgoyne that specializes in measurement in retail environments. RTI

Table 3-3. Definitions of Coded Variables

Variable	Operational Definition
Policy Type	Four policy areas were coded to correspond with ASSIST objectives: clean indoor air, restricting access to minors, excise taxes, advertising and promotions. A fifth category, referred to as miscellaneous, includes lawsuits against the tobacco industry, national settlement talks, and proposed regulation of nicotine by the Food and Drug Administration.
Topic Code	Since 1996, specific topic codes were entered to specify content of articles (e.g., state excise tax) beyond policy type.
Circulation	The number of copies of the publication that are distributed daily.
Type of Article	Articles were classified as being one of three types: news story (a factual account of an event or issue), editorial (an opinion of an event or issue written by newspaper staff), or letter to the editor (usually written to the newspaper by a member of the community).
Front Page	This variable was created in an attempt to identify the visibility of a specific article in the particular paper.
Point of View	The point of view of editorials, letters to the editor, and editorial cartoons were coded as neutral, pro-tobacco-control, or antitobacco-control. Hard news stories were coded as neutral.
Origin of Story	To assess the salience of the tobacco control policy issue, articles were coded as either national or local in focus. This was determined by whether the source of the story was a national wire service such as Associated Press, United Press International, or Reuters, or a local journalist (stated in a byline). When the media analysis first started, this variable was not included in the coding protocol. After 6 months of coding, however, when it became apparent that many articles in local papers were covering national tobacco policy issues taken from national wire services, it was added.

Source: Evans et al. (2003)

has worked with SPAR on a number of projects, as has ImpacTeen, and we feel that they may provide the most cost-effective approach. In addition, given our close collaboration with RPCI staff who are involved with the ImpacTeen study, we can benefit from the study protocols they have used to measure advertising and promotions.

Below, we summarize the methods used to capture cigarette advertising and promotions in retail outlets from a number of studies. Slater, Chaloupka, and Wakefield (2001) captured counts of the number of visible advertisements for Marlboro both inside and outside of three stores within a 1-mile radius of schools in the ImpacTeen study. They also noted whether or not there was any promotion that included either merchandise or free packs of cigarettes. In another study by Wakefield et al. (2000), teams of two trained field staff made 10-minute visits to stores to note the extent of storefront advertising using a four-point scale. This scale ranged from having no advertising to advertising covering nearly the entire storefront. They noted any ads that were placed below 3.5 feet to capture ads easily visible by children, counted the number of functional objects such as clocks and shopping baskets in the stores, and indicated the presence of promotions. Store type was recorded along with the number of cash registers as a proxy for store size.

A third study, conducted by Linda Pucci (now at RTI) and colleagues (1998) measured only outdoor advertising at retail outlets in six communities in Massachusetts. They counted the number of advertising “units,” including billboards, placards, posters, stickers, banners, neon signs, and free-standing signs, and recorded the placement of ads. Roughly 90 percent of all advertising was from seven brands. Finally, there is ongoing research by Kurt Ribisl at the University of North Carolina and Pam Clark at Battelle on measuring retail advertising, and we may benefit from their insights in developing a protocol for Community Partners. Another study from Massachusetts examined externally visible advertising on retail storefronts before and after the MSA (Celebucki and Diskin, 2002). In this study, the authors counted the number of advertisements on three distinct locations: buildings and detached areas, such as parking lots, sidewalks, and windows and doors. They also noted the amount of advertising for seven cigarette brands. The study found that retail advertising significantly increased.

Finally, a study from California (Feighery et al., 2001) summarizes advertising and promotional activities in retail outlets from a statewide survey. This study provides very detailed measurement of advertising and promotions, including type of store (i.e., convenience store including those that sell gas, gas stations, drug stores with at least three cash registers, grocery stores with at least three cash registers, liquor stores, small stores [less than three registers], and tobacco stores), type of advertising, location, and presence of advertising visible to children. The latter was accomplished by noting materials at or below 3 feet from the floor and placement within 6 inches of candy. Coders attended a 1.5 day classroom training and a half-day in-store training. The study found that 50 percent of stores had ads at or below 3 feet and 23 percent had displays near candy.

In addition to retail advertising, it may be worthwhile to explore the feasibility of tracking event sponsorship by tobacco companies. IEG, an industry leader in measuring event sponsorship, provided data for at least one study on this topic (Rosenberg and Siegel, 2001).

Once it is clearer what may be feasible for Community Partners to implement, we will develop a more detailed protocol and training material (if needed) based on the methods used in the literature summarized above. It may also be sensible to bring in experts in this area, such as Kurt Ribisl from the University of North Carolina at Chapel Hill and/or Pam Clark from Battelle if they are willing to assist us.

3.4 Recommendation 4: Enhance Program Monitoring and Activity Reporting

Although the intermediate and long-term outcomes associated with the TCP are crucial to understanding the impact of the TCP and Community Partner activities, process or formative measures are also a critical component of the evaluation as they provide feedback to the program and guidance for strengthening and focusing activities. In addition to assisting program development and design, these measures can also serve as short-term indicators of the progress being made toward the ultimate program goals. To use formative information, data must be

collected from the Community Partners on a regular and ongoing basis. The data collection tool must be detailed and specific so that all sites clearly understand what information to record and report comparable information. It also must be user-friendly in order to encourage ongoing data input and interactions with the evaluators.

We realize there is a history to program monitoring that Community Partners have been asked to submit. Currently, Community Partners are required to submit monthly progress reports that include details on their strategies to (1) reduce exposure to SHS, (2) reduce tobacco use initiation, and (3) increase cessation. These reports provide details on the activities undertaken, whether earned media was obtained, and any notable community changes as a result of the work in each strategic area. However, more detail is needed to understand how these Community Partners are impacting the TCP and statewide tobacco control efforts.

We recommend enhancing the current Community Partner Monthly Report to collect more specific data from the Community Partners on their activities and collaborations. To collect more detailed information, we recommend providing specific guidelines for the information that should be included in the description of activities. For each activity and collaboration, the reports should probe for additional information, such as the following:

- For activities conducted by the Community Partner, we would want to know
 - ✓ type of strategy utilized and how selected;
 - ✓ intended audience for planned activities, resources, and/or campaigns;
 - ✓ materials developed;
 - ✓ number of materials distributed through events and activities;
 - ✓ number of people reached at activities and events; and
 - ✓ perceived effectiveness of outreach activities (based on event evaluation forms).
- For Community Partner collaborations and partnerships, we would want to know
 - ✓ groups and organizations Community Partner partnered with,
 - ✓ number of meetings with partner organizations,
 - ✓ list of meeting attendees, and
 - ✓ outcome of partner meetings (decisions reached, action items, next steps).

The Community Partner Monthly Report will also require the following information to be included in the monthly reports: progress made toward implementing local surveys and observational compliance checks, documentation of oversight of mini-grants to local HCPOs, and documentation of dissemination of updated local cessation service directories.

The process for completing this task will include discussing the history of program reporting with selected TCP staff and identifying strategies for effectively requiring accurate reports from Community Partners. One strategy we have used in the past is to develop an Access data system that people can easily input information into and then save so that it is accessible to the evaluators and TCP staff. We could also make this information accessible through a secured web site so that

Community Partners could provide reports systematically in this manner. We will discuss our options with TCP staff and develop a work plan for developing and providing training on the use of the system in collaboration with NYSDOH.

3.5 Recommendation 5: Conduct Community Sentinel Site Study

The overall success of the TCP will, to a large extent, depend on the success of local Community Partners. States such as California, Florida, and Massachusetts have made a strong commitment to community-based initiatives because they believe that these programs are the “glue” that binds the entire tobacco control program. As mentioned above, the TCP is relying on their Community Partners to ensure implementation of policies. For the CIAA alone, Community Partners are expected to facilitate local implementation of this law and to then monitor the extent to which local businesses are abiding by the new restraints on smoking. These community-level efforts are extremely complex and have often not been sufficiently monitored and studied in a manner that allows for a complete understanding of how they affect program outcomes. A commonly cited weakness in current evaluations of community-based health promotion programs is the lack of qualitative data that can provide details on the context within which programs are working or not and help to facilitate ongoing program improvement.

Qualitative data provide a depth of understanding usually unattainable through other evaluation methods. Qualitative inquiry asks “why,” “how,” and “in what way” programs are meeting their goals and objectives. It is concerned with developing explanations of social phenomena and aims to help us understand the context within which a program is operating and how to best maximize the available resources to implement initiatives (Hancock, 1998). Qualitative research is also concerned with the opinions, experiences, and perceptions of individuals involved with or recipients of the program. Qualitative methods are often used in evaluation because “they tell the program’s story by capturing and communicating the participants’ stories” (Patton, 2002). Therefore, a strength of program evaluations that use qualitative methods is the ability to truly come to understand the individual and environmental factors influencing program performance and use the lessons learned from in-depth knowledge of this experience to inform further program improvements. To understand the diffusion of New York TCP program components in a community, qualitative analysis is necessary, such as tracking the use of tobacco control education materials, interviewing and observing local opinion leaders, observing community tobacco control events, assessing the salience of tobacco control messages among individuals and organizations, and monitoring interactions among community members. For this reason, in New York, the Community Partner efforts as well as other community-level influences should be monitored, such as local school initiatives, regional cessation centers, media and pro-tobacco advertising, and other efforts within the community that could impact program goals.

Our proposed community-based study of the New York State Community Partnerships is threefold and will allow us to develop a thorough understanding of the functioning of the Community

Partnerships and their contribution to the outcomes associated with the TCP. Using knowledge we have acquired through other state tobacco control program evaluations and through the evaluation of the American Cancer Society's Communities of Excellence, a program TCP once required their adult coalitions to utilize, we highly recommend the use of multiple measures and multiple data collection strategies to enhance our ability to quantify how local change is affected by the TCP efforts (Campbell and Russo, 2001). This design would be cross-cutting by allowing us to answer evaluation questions for each goal of the TCP, such as the following:

- How have the TCP and Community Partners developed partnerships and collaborations? Who are they partnering with?
- What types of activities and outreach are Community Partners employing to educate community members, employers, and the media about the dangers of SHS, the importance of the CIAA, the availability of cessation services, and so on?
- What strategies have been identified and/or implemented by Coordinated School Health Networks, Community Partners, and the TCP to promote smoke-free schools and living? Which communities (e.g., ones with more partners, such as a school based effort that is focused in one community versus no school based effort in another) seem to be more successful?
- What barriers and facilitators are Community Partners facing in developing and implementing activities?
- What partnerships and strategies among Community Partners seem to be working best in implementing local initiatives?
- How do the partnerships and collaborations among groups change over time? Have new partnerships formed? Is there significant attrition in the individuals involved in the partnerships or in the partners who are working with TCP? What are the factors associated with this attrition?

This "triangulation" of methods and data sources calls for the use of a combination of methodologies in the study of the same program (Patton, 1990). Using these methods in program evaluation therefore requires fieldwork and direct contact with program recipients and others involved in implementation. Qualitative methods consist of three kinds of data collection: (1) in-depth, open-ended interviews; (2) direct observation; and (3) review of written documents (Patton, 2002). In evaluation research, qualitative methods are typically used to study programs for the following reasons:

- Process or formative evaluation of a program to inform improvement of its development or to provide understanding of contextual factors that could be impacting its successful implementation
- A complement to quantitative methods to provide confirmation of a finding (i.e., validation) or a richer explanation of the results
- An in-depth exploratory tool for use in cases where quantitative methods are either not feasible or inappropriate

For the New York TCP, collection of qualitative data is particularly important since so many new initiatives or changes have been made to the program structure and operation. It will be important to understand how these changes are impacting delivery of the program at the local level and what

lessons are being learned by Community Partners that can be translated into action plans to incorporate within statewide efforts. The following provides details of our three sources of data for obtaining this information.

3.5.1 Enhance the Community Partner Reports

As previously discussed under Recommendation 4, we suggest enhancing the current Community Partner Reports. These reports collect information about the activities, community changes, and earned media related to the implementation of each program goal. The tools are a critical means of collecting relevant process data from the sites in a simple and unobtrusive manner. Although Community Partners currently report on their activities, this is done in more of a descriptive format. We recommend enhancing these forms to collect additional detailed data on the Community Partner activities. Prompting the Community Partners with the specific information to record (e.g., number of meetings between Community Partners and local collaborators, attendees at community meetings) will provide data that are being collected consistently and systematically to allow for a more meaningful interpretation of the findings. We will work with the TCP to develop a modified version of the Community Partner Reports and ask that all Community Partners be required to submit these data on a quarterly basis. We will use these data to describe ongoing activities and initiatives, identify communities that are particularly active, and determine key barriers and facilitators to implementation of TCP directed strategies. Ultimately, we will link these local data from all Community Partners to other data sources so that we can determine the extent to which local efforts are working to meet the statewide intermediate and long-term outcomes.

3.5.2 Conduct Community Case Study

The second component of the community-based data collection will be a sentinel site study in selected communities (we propose six sites) to provide an in-depth assessment of local program activities, including barriers to and facilitators of implementation and validation of local Community Partner assessments (e.g., CIAA compliance checks of workplaces and school campuses, monitoring retail advertising). If the information needed involves answering “how” or “why” a program is working or not, then a case study design is needed. According to Yin (1989), a case study is an “empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and multiple sources of evidence are used” (p. 23).

These types of studies aim to elucidate and understand the internal dynamics of how a program, organization, or relationship with the community works (Patton, 2002). Through a case study approach, we can capture comprehensive, systematic, and in-depth information about each program while providing an understanding of the context within which the program operates. This approach will enhance understanding of local program implementation while describing how the program components relate to one another.

Site Selection

To select sites, we will work with the TCP to identify key criteria, such as geographic location, community demographics, and experience in tobacco control, so that the six sites reflect the variations among the existing Community Partners. Using these criteria, we will develop a decision matrix that categorizes local programs by the criteria so that diversity among the programs can be achieved. As an example, since some communities have school-based programs and/or cessation centers readily available to them, we will recommend that we select sites that provide representation from communities with and without these added supports. The idea of a case study is to provide in-depth knowledge of how different communities are implementing and responding to TCP efforts so that lessons learned from these communities can be translated into ongoing program improvements for the entire state. Therefore, it will be important to select communities that are representative of the state and the types of areas on which the New York TCP is focusing their efforts.

Data Collection

Within each site, we will conduct semiannual site visits in order to collect data from a variety of sources. We propose conducting interviews during these site visits with the Community Partner members, key stakeholders, community members, and other relevant individuals to obtain qualitative data on program implementation that may be missed from relying on the Community Partner Reports exclusively. These data might include

- community leaders' attitudes toward tobacco use and restrictions and support for policy development;
- school principal, health educator, nurse, and other key staff of local middle and high schools' attitudes toward smoking and support for restrictions;
- agency leaders' (e.g., ACS, ALA) knowledge of resources available to address tobacco use, cessation programs that are available, among others; and
- surveillance of retail stores to assess pro-tobacco advertising and promotions.

During the 3 months after approval of this evaluation plan, we would specify the critical indicators and the key stakeholders to involve in these sentinel sites and the community-based variables that are of highest priority to the TCP. We would then create protocols for each type of interview and submit to the TCP for input and approval prior to the initial contact with each site.

Study Implementation

Once sites are selected and protocols for site visits have been developed, we will work with our partners, RPCI and Columbia University, to establish teams of researchers assigned to work with each sentinel site. By having these partners participate in the community-based evaluation, we will have a local presence within the state that will make our evaluation more effective and more efficient (e.g., easier access to the operations and events sponsored by the local groups). We expect that about half of the sites will be in the northern region of the state and the other will be in

the southern. These teams will be assigned to work with specific sites to ensure ongoing contact. A schedule of activities could include

- monthly conference calls with key staff/volunteers at each site to obtain updates on implementation of activities,
- semiannual site visits to obtain interview data from key stakeholders, and
- additional visits to sites to observe large local activities and events.

Using this ongoing contact, we will be able to specifically identify which sites are having the most success in reaching their objectives. We will also be able to analyze these data sources to determine the factors associated with their apparent success.

3.5.3 Incorporate Community-based Measures into Statewide Quantitative Studies

Our community research team will also develop community-based measures that are appropriate for inclusion in statewide surveys (e.g., ATS, YTS, Youth Telephone Survey, and HCP Survey) where feasible and appropriate. For example, we can develop appropriate questions to gauge adult awareness of the Community Partners' activities.

3.6 Recommendation 6: Develop a Youth Telephone Survey with Longitudinal Follow-ups

The existing surveillance system for youth in New York provides a strong base for evaluating the impact of the TCP on long-term behavioral outcomes, such as current (at least once in past 30 days) and frequent (at least 20 out of the past 30 days) smoking. These data come from the biannual YTS starting in 2000 and provide statewide estimates of youth tobacco attitudes, intentions, use, and influences. There are two primary limitations of the YTS. First, the YTS is better suited to population-based surveillance than to evaluation (i.e., due to the cross-sectional nature of the survey, our ability to draw strong causal conclusions about program impact is limited). Second, the length and timing of administration is less flexible than a telephone survey.

Although the YTS provides strong long-term indicators of program goals, it has much more limited information on exposure to program activities and indicators of short- and intermediate-term program goals. A central feature of our comprehensive evaluation approach is having sensitive measures of exposure to program activities and indicators of short-term, intermediate, and long-term program effects. Within the limits of a relatively brief paper-and-pencil school-based survey, it is difficult to include complete and sensitive measures of program exposures such as awareness of antismoking media messages since the mix of media messages is subject to rapid change. Measuring awareness of and reaction to countermarketing activities and events, promotion of tobacco in the media, and pro-tobacco marketing influences as well as other program activities cannot be easily accomplished via the YTS. Telephone surveys for Florida, Indiana, Minnesota, and New Jersey and nationally for Legacy provide timely feedback for program evaluation, especially with respect to intermediate outcomes, such as program-focused knowledge, attitude,

and belief measures. By having comprehensive data on youth's exposure to program activities, we can contrast tobacco initiation for youth with high, medium, and low exposure to program activities.

Another rationale for having comprehensive measures for the TCP is that it generally takes substantial amounts of time before tobacco control interventions achieve detectable behavioral effects (Lefebvre, 1990). Programs will first achieve short-term and intermediate outcomes, possibly well before achieving measurable changes in behaviors prevalence. In the early years of the program, as the program implements new interventions, short-term and intermediate outcomes—such as increased awareness of program activities and changes in knowledge and attitudes (e.g., the dangers of SHS, the influence of smoking in the movies)—are the most likely observable outcomes. However, the YTS has a limited number of measures of such “upstream” behavioral determinants.

Second, due to the cross-sectional nature of the survey, our ability to draw strong causal conclusions about program impact is limited. By recontacting youth who complete a baseline survey, we can examine how exposure to program activities influences the trajectory of youth smoking and thus enhance the ability of the evaluation to attribute change in program goals to program activities.

3.6.1 Sample

We recommend surveying 1,800 10 to 16 year olds in Year 2 of the evaluation (spring 2004), anticipating that youth 18 years and older may move from the state and would be lost in follow-up waves. One possibility is to aim to have 200 completed interviews for each of the nine media markets. In addition, we recommend supplementing the baseline survey with subsequent annual cross-sectional waves of the survey timed to flights of the youth countermarketing campaign. Surveying an additional 400 to 500 youth, concentrated in younger ages, would ensure a more state representative snapshot of New York youth and provide ongoing coverage of younger youth (a rolling cohort design).

3.6.2 Methods

One method for mitigating costs is to combine random-digit-dial (RDD) survey techniques with commercial lists of households with a high probability of containing a child. We have successfully used this technique in Florida. The disadvantage of relying too heavily on listed samples is that these youth may not adequately represent New York youth. We recommend a 50-50 split between these two techniques. Another potential cost saving technique may be to identify some youth in the process of conducting the ATS. Such a technique could also provide parent-youth dyads if that is of interest.

Building on the work of Dr. David Sly and colleagues in Florida, RTI has developed methods for measuring the recall of specific advertisements (national and Florida truth® campaigns, Philip Morris' "Think. Don't Smoke" campaign, and other state campaigns) and responses to these ads.

The approach includes measures of ad awareness, message theme comprehension, and a series of items gauging audience response to media measures.

The longitudinal youth survey should also capture exposure to other program components, such as community initiatives, youth empowerment programs, and tobacco use prevention education in schools. Measuring these components can help to isolate the independent contribution of the media component of the TCP and identify any synergistic interactions among program components that create enhanced effects. In addition, to isolate the impact of New York's media campaign on youth, we must control for the confounding or complementary effects of other antitobacco media campaigns, such as Legacy's national truth® campaign and any spillover from surrounding state campaigns such as Vermont and/or New Jersey.

We are targeting at least a 75 percent response rate for follow-up surveys. To ensure a high response rate, RTI's specialized Tracing Operations Unit (TOPS) will use any of a number of sources and resources to locate sample members on this study. TOPS staff will send the last known address to TeleMatch for automated telephone appending services and submit all subjects to a nationwide death file. TOPS staff will also use the sample member's last known address and last known name to search multiple nationwide consumer and other commercially available databases in an attempt to develop current address and phone information.

3.7 Recommendation 7: Enhance the Content of the ATS

In June 2003, RTI and the TCP developed the ATS. By September 30, RTI will have completed 2,000 interviews with residents of New York State, with over 1,000 interviews prior to the implementation of the new comprehensive CIAA that went into effect July 24, 2003. Moving forward, we recommend enhancing the ATS in two primary ways. First, we would like to address the gaps in the measurement of program exposures and indicators of short-, intermediate-, and long-term program impacts that we previously noted. These include the following:

- Awareness of strategies to decrease SHS exposure
- Awareness of industry manipulation of SHS information
- Awareness of SHS media campaigns and local activities
- Attitudes specific to TCP media campaigns and strategies
- Attitudes toward smoke-free home and vehicle restrictions
- Awareness of tobacco sponsorship and promotion at local events (e.g., sporting, cultural, community events)
- Support for policies restricting tobacco sponsorship and increasing excise taxes
- Awareness of tobacco promotion in movies, art, entertainment (added to ATS, Q4)
- Beliefs related to tobacco promotion in movies, art, entertainment (added to ATS, Q4)

In addition to these specific recommendations, more complete and more timely information is needed about statewide and local media campaign efforts so that we can develop comprehensive

measures of campaign awareness and related campaign-targeted attitude items. This would be facilitated by developing a strategy for the media campaign and ensuring that the specific advertisements are chosen and the media buying is known well in advance. The strategy should specify overall campaign themes and specific ads should be chosen consistent with this theme and based on theory and evidence from the literature. The current system does not permit a thorough evaluation of the media campaign efforts.

Second, we recommend performing a cognitive test of the ATS. We understand that the ATS is already underway, but we believe it is important to identify potential problems with the questions or response options so that they can be improved for future waves (Patton, 1990). Cognitive interviewing helps decrease measurement error, thereby improving the reliability and validity of the questionnaire and the quality of the data collected.

For the cognitive interviews, we will recruit a sample of smokers and nonsmokers who will be asked a set of structured questions with standardized probes and tailored follow-up questions. Respondents are told at the outset that the purpose of the interview is to improve the questionnaire and that we are seeking to learn from them by “trying out” our questions. They are encouraged to offer feedback both in direct response to our questions or spontaneously.

During cognitive testing, we examine issues such as the wording of items, response options, the order of the questions, and question formatting (Willis and Lessler, 1999). The cognitive interviewing process provides insight into the following issues:

- **Comprehension:** What do respondents think the question is asking? What do specific words and phrases in the question and/or response options mean to them? Are there words used that respondents do not understand?
- **Information retrieval:** What information do respondents need to recall to answer the question? How accessible is this information? What recall strategies are used?
- **Decision processes:** How do respondents go about choosing their answers? Could a question be reworded to make the decision process easier?
- **Navigating the questionnaire:** Do the respondents follow the order of the questions correctly, including skip patterns?

Obtaining information about these issues will be particularly useful for understanding how smokers and nonsmokers understand and interpret the questions. In addition, participant responses may be used to modify the questions to make them more relevant. Participants will be paid \$50 for their cooperation. In addition, we recommend analyzing the ATS data from the first quarter of data collection to assess the psychometric properties of the questions to make additional refinements for future waves of the ATS.

3.8 Recommendation 8: Conduct Observational Studies of Compliance with the CIAA

The CIAA calls for all schools, including school grounds, to be smoke free and for all public and private colleges, universities, and other educational and vocational institutions to not allow smoking indoors. The TCP's strategic plan calls for a statewide assessment of tobacco use on a representative sample of middle and high schools and post-secondary campuses. In addition, Community Partners are being asked to perform community assessments of compliance of bar, restaurants, bowling establishments, and other venues covered by the new, comprehensive law. This is similar to work Community Partners recently completed for a pre- and post-test observational study of 300 restaurants, bars, and bowling facilities during the time of the CIAA implementation in July 2003. Working with the Center for a Tobacco Free New York, the Community Partners collected data from these sites on specified days and during specific times of day using a standard assessment tool for observations. This type of standardization is ideal when conducting observational research.

Observational research is the systematic inquiry into the nature or qualities of a topic under study (Patton, 1990). Conducting observational research can be time-consuming, and many of the Community Partner representatives work on a volunteer basis for their local coalitions. In addition, many of the Community Partner representatives have little to no research training and therefore may not as accurately observe a situation as an outsider trained in this specific method of data collection. Although researchers recognize the advantage of having people involved in the topic area under study conduct observations, the decision to use lay-researchers (i.e., Community Partner members) is typically derived from whether having an insider's perspective would help achieve more reliable measures. In this case, it is likely that an outsider's perspective, one with specific training in this method, will ensure comparable data across locations and over time. Therefore, we recommend having staff from the evaluation team conduct observations that complement the Community Partner efforts by either validating or supplementing the partners' efforts in selected locations, such as the case study sites. We also would be happy to assist in providing the training to Community Partners on how to accurately conduct observations.

We also recommend coding and analyzing the data collected by ACS/CAAT and Community Partners, in cooperation with New York State College Health Educators Association and Baccus and Gamma, on post-secondary institutions' tobacco policies. These data, together with a parallel follow-up survey in the future will permit us to assess the impact of efforts to encourage more stringent campus policies.

3.9 Recommendation 9: Conduct 3- and 6-Month Follow-Up Surveys of Participants from the American Legacy Foundation New York Employee Health Study

As described above, Legacy funded RTI to collect a baseline survey of bar, restaurant, and bowling establishment workers prior to the implementation of the comprehensive CIAA on July 24, 2003. Legacy is making these data available to RTI and the TCP for follow-up studies. We recommend conducting a 3-month and 6-month follow-up survey to assess the extent of compliance with the new law based on self-reported information and saliva cotinine measures. All of the study subjects have agreed to participate in follow-up studies. The following specific hypotheses will be tested: (1) levels of saliva cotinine will decline over time following implementation of the new law; levels will be lower at each data collection point compared to baseline and compared to earlier data collection points; and (2) self-reported variables will change in a similar fashion (e.g., superficial health complaints, observations of smoking in the workplace).

3.10 Recommendation 10: Continue and Enhance Quitline Caller Follow-up Surveys

We recommend that the annual follow-up surveys of Quitline callers be continued. The main purpose of this survey is to determine how many of the smokers who contacted the Quitline within the past year have stopped smoking. The primary dependent variable is 7-day nonsmoking prevalence. This survey is also used to collect some information on methods used to stop smoking and satisfaction with the service.

In addition to feedback on the Quitline, we recommend that the TCP consider using this sample of smokers and former smokers as a resource for evaluation. While this sample is not necessarily representative of smokers, it may provide a considerable amount of valuable feedback on the program. In addition, it may be possible to collect data on other measures that would allow us to weight the data appropriately to make the sample more representative of the state (by comparing the Quitline sample with smokers/former smokers from the ATS). Some examples of how this sample may be useful include inquiring about

- support for cessation from HCPs, workplaces, cessation centers, and friends;
- awareness of Medicaid benefits for Medicaid beneficiaries;
- barriers for smoking cessation among low-income, Medicaid-ineligible smokers;
- policies pertaining to smoking in the home and family cars and change vis-à-vis smoking cessation efforts; and
- other influences on quit success/failure.

We will have to explore any IRB concerns about contacting these Quitline callers and balance the needs for evaluation with respect for callers' time.

3.11 Recommendation 11: Explore the Feasibility of Conducting a Survey of Health Care Plans

Objective 3C calls for increasing the number of health plans that provide coverage of evidence-based treatment for nicotine dependence. Assessing what is available through health plans and what plans employers and employees choose will be challenging. Surveying health care plan administrators may reveal a high proportion of plans that offer benefits, but that does not indicate that employers and employees make use of these offerings. We recommend performing a literature review and working with the TCP and other potential partner agencies to assess the feasibility of gathering data to address this objective.

4. EVALUATION PLAN

4.1 Evaluating Program Effectiveness with Quantitative Data

The existing and proposed enhancements to the surveillance and monitoring systems will enable us to determine whether the TCP achieves a meaningful level of exposure to program activities/strategies among the targeted populations and the extent to which these efforts translate into changes in program outcomes. The data collection instruments should provide the following:

- Sensitive measures of exposure to program activities for all program components:
 - ✓ Measures of potential exposure to the program
 - ✓ Measures of overall awareness
 - ✓ Measures of awareness of specific activities
- Timely feedback to program coordinators:
 - ✓ Information on exposure to program activities to various audiences
 - ✓ Information on awareness of exposure to the program
 - ✓ Information on reactions to program activities
- Sensitive measures of program effects, which typically require the following:
 - ✓ Sensitive measures of expected short-term and intermediate program effects (knowledge, beliefs, attitudes, and intentions)
 - ✓ Sensitive measures of expected longer-term program effects (smoking behaviors)
- Rigorous control for confounding factors, including the following:
 - ✓ Concurrent interventions (such as increases in the cost of tobacco, school-based and community antitobacco programs)
 - ✓ Differences in target audience background (e.g., age, gender, race/ethnicity, school performance, parental smoking)
 - ✓ Differences in context of individuals (e.g., control for observed and unobserved characteristics of schools, communities)
 - ✓ Secular trends

With these data in hand, the first step in evaluating the program begins with process evaluation that answers two types of research questions: “What is the program doing?” and “How well is it conducting activities to follow the program’s design and to achieve the implementation objectives?” In answering these questions, process evaluations provide information critical to identifying program activities and other factors that may facilitate or impede program achievements and that may require adjustment or correction. The next step in the implicit logic described in the evaluation planning matrices (Appendix A) is understanding the impact of these efforts on downstream behavioral determinants and behavior. This section outlines a complementary set of recommended strategies to assess program impact using multiple data sets and techniques that will allow us to triangulate our findings.

4.1.1 Process Evaluation

Quantitatively, we will conduct process evaluations by analyzing the available data to assess the extent to which the program is meeting its objectives of building capacity to implement tobacco control interventions through training and education and implementing the planned activities/strategies targeted to various populations. Using data from the TCP and monthly progress reports from Community Partners, we can examine the level and frequency of training for HCPs and Community Partners.

Another critical assessment includes measuring the quantity and reach of interventions/strategies. Using progress reporting data on the number of activities (e.g., compliance checks, letters to the editor written) and other data sources (e.g., media buys, Quitline call volume, news media coverage, and utilization data on Medicaid benefits), we can define and develop measures of populations served by or exposed to TCP interventions. Precisely measuring exposure to program activities is a fundamental task in evaluating the program's success. These process data are one potential source. However, we will have to explore the extent to which data from the progress reporting system will provide useful proxies of exposure to program activities. Another potential source discussed below is self-reported data from youth and adult surveys.

For both types of information, we recommend performing descriptive analyses that examine the patterns of these efforts with respect to geographic variation (such as county, media market, or program region) and variations over time. Depending on the target population for these activities, it may also be informative to examine variation by community characteristics, such as race/ethnicity, age, and income level.

The intent of these analyses is to provide feedback to the program with respect to expected downstream impacts and any potential gaps in exposure to interventions and training and education. Planned or unintentional variation in the reach and intensity of program efforts is important to understand as we assess downstream indicators of program impact. Specific process analyses for program goals are detailed below where we describe and address short-term evaluation questions.

4.1.2 Impact/Outcome Evaluation

Building on our understanding of the process data, our next step is to describe analyses that illustrate the potential impact of the TCP on downstream behavioral determinants (e.g., awareness, attitudes, and intentions) and behavioral outcomes (e.g., initiation and cessation). A number of analytic descriptive and multivariate strategies are available to assess program impact on intermediate and long-term outcomes.

Descriptive Techniques

- Analyze trends in intermediate and long-term outcomes over time (e.g., quarterly data from the ATS) and contrast with any relevant and available comparison data from other states.
- Examine trends in self-reported exposure to program activities (e.g., awareness of antitobacco advertisements).

- Examine trends in self-reported outcomes by level of self-reported program exposure (e.g., exposed/not exposed or dose of exposure).
- Examine trends in self-reported program exposure and outcomes by level of program exposure based on external measures.
 - ✓ Media market measures of the dose of antitobacco advertisements
 - ✓ Number/intensity of Community Partner activities
 - ✓ Regional per capita volume of Quitline calls
 - ✓ Regional variation in news media coverage of tobacco issues
- Interrupted time-series analysis of changes in program outcomes as policies are changed or new interventions are implemented. For example, pre-post analyses of
 - ✓ the effects of the July 24 implementation of the comprehensive CIAA on SHS exposure,
 - ✓ tax-paid sales data in New York State and City after the implementation of the excise tax increases, and
 - ✓ self-reported cessation behavior once regional cessation centers are established and promoted.
- Contrast changes in self-reported outcomes over time from longitudinal surveys as a function of self-reported or external measures of program exposure (e.g., are smokers exposed to a larger dose of Community Partner activities at baseline more likely to attempt to quit in follow-up surveys compared with those exposed to a smaller dose).

Multivariate Methods

- Relate self-reported exposure to program activities to self-reported program outcomes in cross-sectional surveys at a point in time and with time-series data, controlling for confounding factors.
- Assess the correlation between self-reported exposure to program activities to self-reported program outcomes in longitudinal surveys, controlling for confounding factors such as baseline susceptibility to tobacco use or intentions to quit.

The first two descriptive analyses help us understand the basic trends in these important measures. To attribute changes in program outcomes to the program, it is necessary to first document changes in the expected direction for both these measures. The other descriptive and multivariate models attempt to correlate exposure to the program to program outcomes. The heart of these quantitative strategies focuses on the notion that individuals will differ in their exposure to various program activities (e.g., media campaign, Community Partners). By relating these exposures to outcomes, we will better understand how program initiatives work independently and jointly to contribute to the attainment of program goals. For example, adults who work in a smoke-free environment, live in a community with active Community Partners and readily available support for cessation, and are frequently exposed to antitobacco media messages will be less likely to smoke than comparable adults who receive a smaller “dose” of these interventions. This strategy points to the critical importance of having good measures of exposure and awareness of program activities. A similar approach has been used in California (Rohrbach et al., 2002).

By making use of the mix of program activities across schools, workplaces, communities, and media markets, we can better measure the impact of each program component on key outcomes

to determine program successes and failures. In assessing program effectiveness, our evaluation must also attend to the possibility that the context in which these program activities occur will influence program outcomes. Sociodemographic characteristics and the communities' capacity to organize and deliver tobacco control interventions may influence program effectiveness.

We attempt to draw conclusions about program impact in four ways: (1) trend analysis, including pre-post analyses; (2) multivariate analyses that relate self-reported outcomes to self-reported exposures; (3) a more complex multilevel method that capitalizes on variation in program activities between geographic areas such as counties, media markets, and/or region; and (4) longitudinal analysis.

4.1.3 Trend Analysis

First, to evaluate the effectiveness of the overall program, aggregate time-series models (trend analysis) can be used to observe if TCP implementation has had an effect on the observed trend in a particular aggregate outcome (e.g., smoking rates, tax-paid sales). This type of analysis could be used to examine outcomes specific to a particular program goal (e.g., smoking cessation) and separate program activities individually (e.g., Community Partner efforts, media campaign). However, with such a model, it is difficult to attribute an observed change in trend to any particular program activity.

This is essentially a type of pre-post model that examines the trend in a specific outcome before and after implementation of the TCP. This method implicitly controls for state-level unobserved factors that are time invariant. However, because other unobserved factors, other than implementation of the TCP, could have an impact on outcomes, this method provides only weak statements about the program's effectiveness. The strength of causal claims of the TCP's effectiveness can be enhanced for these types of models (aggregate time-series) by comparing the trend in New York to similar states that have little or no tobacco control program activities.

4.1.4 Multivariate Analysis Cross-sectional Analysis

Second, when sufficient data exist for measuring program exposure and/or awareness as well as for important outcomes and controls, then more advanced multivariate time-series models can be specified that attempt to attribute observed trends in outcomes to trends in program activities controlling for possible confounders. This type of model requires repeated cross-sectional surveys (the same variables measured consistently over time). If the same aggregate unit is measured over time (e.g., community, county, school, or school district), then unobserved time-invariant factors associated with that aggregate unit can be controlled for in the analyses. This model allows for stronger causal statements about the effectiveness of the TCP.

A single cross-section of data can be used for a correlational analysis. This type of model is best for exploring associations between variables but does not allow causal statements about program effectiveness (except in cases when a strong theory is guiding the analysis, and even then a

cautious interpretation of any causal claims is warranted). Multilevel models and/or structural equation models can be specified and estimated using cross-sectional data.

Much of the data available for evaluating the TCP come from several repeated cross-sectional surveys. Thus, any of the models discussed above can be employed to examine the effectiveness of the TCP. However, all of the above models have deficiencies in making causal claims about program effectiveness, especially when the outcomes of interest are at the individual level. To make the strongest causal claims about the impact of the TCP on individual outcomes (given a nonexperimental design), longitudinal data on individuals are required (see below).

Quantitative methods, while providing evidence of the program's effectiveness, have limitations in explaining the observed effectiveness. The results of the quantitative methods do not always provide answers that are useful to those implementing and operating the TCP activities. To add a richer level of detail and suggest possible explanations for the observed quantitative results, we suggest complementary qualitative methods. The aim of these efforts is to better understand the context within which change may be occurring and the "how" and "why" of program implementation.

4.1.5 Multilevel Methods Cross-sectional Analysis

Multilevel models (hierarchical linear models) are a multivariate tool to relate individual outcome measures to exposure to program activities that occur in schools, organizations, communities, and society at large. These models can also account for the context in which the program activities occur. Individual outcomes of interest include

- SHS exposure (Goal 1),
- attitudes about tobacco (Goal 2),
- cessation (Goal 3), and
- initiation (Goal 4).

Individuals also report their self-awareness of program activities. This could be seen as a measure of exposure; however, it is also a measure of how successfully the program activities reached the participants. In addition to examining the impact of contextual-level (community, school, media market) exposure to the program on individual outcomes, multilevel models also address the important question of what contextual-level variables (including exposure) affect the relationship between individual-level awareness and individual outcomes (these effects are known as cross-level interactions). The following equations illustrate the potential of multilevel models for addressing important evaluation questions:

Level 1 (Individual)

$$\text{outcome}_{ij} = \alpha_{0j} + \beta_{1j} (\text{exposure})_{ij} + \dots + r_{ij}$$

Level 2 (Contextual: e.g., school, community)

$$\alpha_{0j} = \gamma_{00} + \gamma_{01} (\text{schoolpolicy})_j + \dots + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11} (\text{schoolpolicy})_j + \dots + \mu_{1j}$$

Multilevel Model

$$\begin{aligned} \text{outcome}_{ij} = & \gamma_{00} + \gamma_{01} (\text{schoolpolicy})_j + \gamma_{10} (\text{exposure})_{ij} + \gamma_{11} (\text{schoolpolicy})_j * (\text{exposure})_{ij} \\ & + \dots + [\mu_{0j} + \mu_{1j} (\text{exposure})_{ij} + r_{ij}] \end{aligned}$$

- Both individual- [$\gamma_{10} (\text{exposure})_{ij}$] and context-level [$\gamma_{01} (\text{schoolpolicy})_j$] main effects
- Cross-level interaction(s) [$\gamma_{11} (\text{schoolpolicy})_j * (\text{exposure})_{ij}$]
- Heteroskedastic error term [$\mu_{0j} + \mu_{1j} (\text{exposure})_{ij} + r_{ij}$]

To fully utilize multilevel models, we require self-reports of exposure to program activities (self-reported awareness). Thus, we must consider the extent to which these measures are captured in statewide surveys. It is also necessary to gather quantitative data on program activities and tobacco control policies from schools, communities, and media markets to understand the context within which individuals make decisions about their tobacco use. This highlights the importance of Community Partner data reporting and media exposure data.

One concern about this approach is the extent to which precise or representative estimates are available from statewide surveys (and other data reporting systems) at the level of counties (or some other meaningful contextual level). Multilevel models offer an advantage here as well.

These models use the full ensemble of data to make estimates. For example, a community-level estimate would be a weighted composite of information from that community and the full sample (these estimators are known as “shrinkage estimators”). Of course, this procedure does not involve a “free lunch,” and the relative weights given each component depend on the precision of the community estimate (Bryke and Raudenbush, 1992). Nonetheless, this estimation procedure is better than the alternatives. At a recent National Tobacco Monitoring Research and Evaluation workshop (November 2002), multilevel models were highlighted as a “cutting-edge” tool for evaluating comprehensive tobacco control programs.

4.1.6 Longitudinal Analysis

Longitudinal data collected for youth and adults provide an opportunity to draw stronger causal conclusions about the effectiveness of the various TCP activities than is possible with cross-sectional surveys. Using longitudinal data, we can track changes within individuals over time and relate these changes to exposure to program activities and other important influences.

One limitation of cross-sectional analysis is the inability to rule out that those who are more/less likely to recall being exposed to program activities may be more/less likely to smoke or more likely to quit. This phenomenon is known as selective attention—smokers may be just as likely as

nonsmokers to be exposed to antismoking commercials, tobacco prevention lessons in school, and other program activities but may be less likely to recall them if they are not open to the messages. This selective attention may result in a negative (positive) association between self-reported exposures and tobacco use (intentions to quit). As a result, even if the program does lead to reductions in tobacco use, this phenomenon can lead to an under- or overstatement of the size of the program effects. Thus, selective attention can be a real threat to conclusions about effectiveness.

With longitudinal data, we can account for selective attention to some extent by segmenting youth and adults by their baseline smoking status (e.g., closed or open to smoking, current smoking) or stage of change in smoking cessation (e.g., precontemplative, contemplative) and see how self-reported exposure to program activities is associated with *change* in tobacco-related beliefs and attitudes, smoking behavior, SHS exposure, and other key outcomes in follow-up surveys. We also account for other baseline characteristics, such as risk taking and confidence in quitting, that have a powerful influence on program outcomes.

Specifically, we examine how exposure to program activities can prevent those who are closed or open to smoking at baseline from escalating to greater tobacco use. Also, for those who are already smoking, we examine the influence of the program on increasing intention to quit or quit attempts. We also recommend exploring the impact of program activities on reducing exposure to SHS and engendering more assertive responses to SHS. To test this relationship, we employ various measures of SHS exposure, including the presence of a smoker in the household, home smoking rules, responses to SHS, and frequency of home and car SHS exposure.

The cross-sectional analysis outlined above would also be used for the longitudinal analysis with some important differences. When analyzing longitudinal data, researchers have a choice between “random effects” or “fixed effects” models. In the fixed effects model (Equation 4.1), a separate term (intercept) is estimated for each individual. This approach controls for unobserved/unmeasured characteristics of individuals that are assumed to be constant over time. The advantage of this approach is that it often helps explain much of the variation in the outcome of interest (smoking). The primary disadvantage is that it consumes many of the degrees of freedom.

$$Y_{it} = \alpha_i + B * X_{it} + u_{it} \quad (4.1)$$

An alternative approach is to estimate a random effects model where the α_i are treated as a random variable just like u_{it} . In random effects models, rather than estimating the number of α_i equal to the number of individuals in the sample as is done in the fixed effects model, one estimates the mean and variance of α_i as we would the u_{it} . In this case, the α_i measures the individual-specific effects that we do not observe, just as u_{it} does for each individual at a point in time in the survey. Random effects are also appropriate if we are interested in making inferences about the population from which the data come as opposed to just this set of sampled individuals.

However, the choice of fixed versus random effects ultimately relies on the statistical properties of estimated coefficients. Random effects models assume that the α_i are uncorrelated with the other predictors in the model. If they are correlated with other predictor variables, the estimates will be inconsistent. To test which approach is appropriate, we propose to use the Durbin–Wu–Hausman specification test (Davidson and MacKinnon, 1993).

Finally, it may be necessary to perform additional analyses to address critics who question whether the declines in tobacco use are attributable to the TCP or to increases in cigarette prices as a result of the recent tax increases or other factors. These analyses might include data from other “control” states (without a comprehensive tobacco control program) to better isolate the contribution of the TCP to changes in outcomes.

As previously noted, a number of limitations are inherent in quantitative analyses. From a measurement standpoint, they rely on recall of exposure to programs and self-reported behavior and are subject to other measurement errors. They have the advantage of producing population estimates of behavior, but they do not provide very rich detail of the subtleties of youth behavior and attitudes. Hence, we discuss various options for qualitative approaches that can complement our quantitative analyses.

4.2 Qualitative Methods

The advantage of a quantitative approach is that it provides the opportunity to measure the responses of many people to a limited set of questions, thus facilitating comparison and statistical aggregation of data as described above. By contrast, qualitative methods typically produce a wealth of information from smaller groups of people but increases the depth of understanding of the program under study (Patton, 2002). Although these findings are not as generalizable as those from quantitative methods, they can provide enriched knowledge of the operation of a program and answer the question of how or why a program worked (or not) to impact change. The following provides an overview of the types of community-based data we propose to collect for New York’s TCP and how we will analyze findings to complement the overall evaluation efforts.

4.2.1 Community-based Data Collection

Evaluation research stresses the importance of developing measures that provide for a “triangulation” of methods (i.e., multiple data sources and collection strategies) to assure that the conclusions drawn from qualitative analysis are reliable (Patton, 2002). As described under Recommendation 5 (Section 3), we propose to collect community-based data from a variety of sources. Although most of these data are qualitative, some of the variables will be quantitative

(e.g., counts of participants, number of activities completed). Table 4-1 provides an overview of the data collection method and selected variables of interest and sources of information for each, followed by a description of how these measures will be developed and collected.

Table 4-1. Qualitative Data and Sources

Method of Data Collection	Selected Variables of Interest	Sources of Information
Program Monitoring System	Counts of activities, interactions with partners	All current Community Partners
Quarterly Reports	Feedback on how activities are going, objectives that are met (or not), facilitators and barriers	All current Community Partners
Case Study	Interactions among program components, who is involved and why (e.g., are there others who should be involved), activities that are well received, program operation, community context (i.e., features of the environment impacting program implementation)	Monthly conference calls with local program staff Semiannual site visits to conduct <ul style="list-style-type: none"> • key informant interviews with partners, community leaders, and others; • focus groups with members of the target audiences, retailers, and others; • in-depth interviews with potential partners, current and former coalition members; and • ongoing observation of large local events

Program Monitoring System

We will work with TCP and selected Community Partners to develop and/or enhance the Program Monitoring System. The System, similar to one Dr. Holden helped North Carolina develop, will be comprehensive in obtaining information from Community Partners on activities they are conducting, who they have reached in their community, what they have achieved, the barriers and facilitators they have encountered, and other variables. Variables included in this System will be derived from the evaluation questions for each goal as presented in the next section. We will work with TCP to develop training for this System so that we ensure consistent and accurate reporting of completed work. Upon completion of training, we will ask the Community Partners to provide quarterly inputs into the System to itemize the work they have completed.

Quarterly Progress Report

In addition to completing the Program Monitoring System, we would like Community Partners to continue using the current progress reports in order to obtain their responses to these open-ended questions. We will work with TCP to revise the questions somewhat to attempt to systematically define the level of detail desired from the Community Partners. For example, it is likely that some Community Partners are currently providing very short, terse responses to some of the current

questions, while others are providing detailed responses. We will work with TCP to determine the desired level of detail and incorporate training on completing these forms into the training for the System, as described above.

Case Study

As described under Recommendation 5 (Section 3), we will select six sentinel sites among the currently funded Community Partners to collect case study, in-depth data during the course of the evaluation study. For these sites, we will assign members of our research team to work with each site throughout the course of the study; these people will conduct monthly conference calls with the program staff to obtain up-to-date information about progress being made and barriers or facilitators associated with completion of tasks. Team members will include one RTI staff member and one staff member from our partners, depending on their proximity to the community (e.g., Columbia would work with communities in the southern or eastern half of the state and RPCI with the northern or western half, depending on the location of the sites). We will take detailed notes of these calls and enter them into our database for each site. In addition to these calls, our local team members will visit each community when large events or activities are underway in order to observe what is happening and how things are going.

We also propose to conduct semiannual site visits to each of these six communities. Each site visit will include conducting interviews, focus groups, observations, and other methods as appropriate, to collect in-depth information from people identified as being targeted by the program or somehow key to their ongoing efforts (e.g., retailers, bar owners, political leaders, boards of health directors). During each site visit, we will audiotape all interviews and have the notes transcribed for data entry and analysis. We will maintain a tracking system for each site that includes all of their data sources.

4.2.2 Qualitative Data Analysis

All of the data for the sentinel sites will be maintained in a folder specific to each community. Data from all of our sources will be included in an annual analysis. In conducting qualitative analysis, the research questions that were used to develop the study protocols (i.e., each interview or data collection guide) provide the framework for a content analysis of the data. Each question or concept is assigned a code, and a content analysis of identifying, coding, and categorizing the primary patterns in the data is conducted. We can incorporate data from each source (e.g., monthly conference calls, interviews) into a master file to be analyzed for each site. In this way, we will conduct a cross-case analysis that groups together answers from different people to common questions or analyzes different perspectives on central issues or themes. Using state-of-the-art software, such as N*Vivo, we will analyze the data for themes and commonalities across the sites. Using principles and guidelines for qualitative data analysis (Miles and Huberman, 1994; Patton, 2002), we will provide findings both within each site and across all of the sentinel sites in order to provide lessons learned for how best to implement community-based efforts, as

well as how to successfully incorporate these local initiatives to most effectively address the statewide priorities.

Throughout this process, we will work to ensure that the quantitative data collected complement the qualitative data and vice versa. For example, in the ATS, a number of questions are asked about general awareness of media messages. By understanding more about the communities involved with the TCP, we can enhance the ATS to incorporate more specific questions about ongoing local campaigns, health education messages several communities are promoting, and policies being considered. Although our sample sizes within an individual community will be too limited to make generalizations about the findings, we will identify common themes and messages among communities so that conclusions can be drawn with regard to which are most effective or are associated with attitude and/or behavior changes. We can also incorporate lessons learned from these sentinel sites into revisions of the overall Program Monitoring System. For example, we may find through the sentinel sites that similar activities are occurring across the sites that are not accurately captured in the System and can then revise the System to continuously improve upon the data entered into it.

4.3 Evaluation Questions and Plan by Program Goal

The following sections address evaluation questions by program goal to address how the program and other influences have had an impact on these goals. After presenting evaluation questions by goal, we present some cross-cutting questions that address outcomes that are related to these goals and activities but do not fit squarely in any one goal. For example, several of these goals may have an impact on cigarette consumption. As a result, we examine changes in cigarette sales and how the program and other influences are correlated with these changes. Finally, we address important policy changes that are not part of the program, such as Section 1399 II of the Public Health Law, which was amended in August 2000 to prohibit the shipment of cigarettes to New York addresses other than those of licensed cigarette dealers. Enforcement of this law will result in decreased opportunities for low-priced, out-of-state cigarettes and hence will affect the prevalence and intensity of smoking.

4.3.1 Goal 1: Eliminate Exposure to Secondhand Smoke

With the recent amendments to the CIAA (Public Health Law Article 134e), which went into effect on July 24, 2003, New York State is poised to have a significant impact on eliminating exposure to SHS. The CIAA is likely to have a direct and immediate impact on exposure among employees in workplaces not previously covered by the law. Reduced exposure in this population will likely also have a positive impact on short- and long-term health consequences (e.g., respiratory illness and lung cancer). The CIAA may also have more indirect effects by raising awareness of the dangers of exposure to SHS and social support for banning smoking in public and private places. In addition, because detractors of the law raise concerns about the economic impact of the law on businesses and their employees (especially in the hospitality industry), it is important to evaluate

the impact of the law on related outcomes, such as employment and the level of sales in these establishments over time. Finally, in light of the comprehensive CIAA, the program will be placing an emphasis on promoting smoke-free homes and cars as well as on implementation and continued support for the law.

With the extensive surveillance and monitoring systems, there are many opportunities to demonstrate the impact of the CIAA and other programmatic efforts on SHS exposure and its related impact on health and economic indicators. Despite the wealth of data, there are challenges to the evaluation. There are potential synergistic effects from programmatic efforts aimed at other goals that may also impact SHS exposure, such as efforts to promote cessation that may encourage smokers to ban smoking in their home as an initial step toward smoking cessation, the impact of smoking cessation on SHS exposure, and changes in cigarette price and its impact on the prevalence and intensity of smoking and the resulting decrease in SHS exposure. These cross-cutting influences make isolating the impact of any one effort on reductions in SHS exposure challenging. At the same time, there are opportunities to create comparison groups from other states without comprehensive CIA laws with the use of CPS data.

Another challenge to the evaluation, which is not unique to this goal, has to do with adequately characterizing the quantity, quality, and reach of efforts by funded partners. Their efforts are diverse, and the impact of their activities may be diffuse and take time to bear fruit. As a result, it will be difficult to directly and quantitatively link their efforts to program impact. As we describe below, we will attempt to correlate the intensity of efforts to program impact with multilevel models and other techniques, but data limitations may prevent us from drawing strong conclusions. Efforts to build partnerships and collaborations are also difficult to evaluate since their payoff may be sometime after the partnerships are formed. As a result, we hope that our qualitative case studies can provide useful insights as to the potential value of these efforts.

What follows is a series of short-, intermediate-, and long-term evaluation questions and a brief description of how we will address these questions using qualitative and quantitative methods previously described.

Short-term Evaluation Questions

The purpose of the short-term evaluation questions associated with Goal 1 is to understand the efforts being undertaken to increase the support of the CIAA, compliance with the CIAA, and increase the number of locations that are smoke free (e.g., homes, vehicles, educational institutions). These questions focus on how the Community Partners are operationalizing their work plans and the extent to which smoke-free efforts are currently in place in New York State communities.

Short-term Qualitative Evaluation Questions

- ST 1.1 How have the TCP and Community Partners developed partnerships and collaborations to address SHS? Who are they partnering with?

- ST 1.2 How are Community Partner activities and campaigns being chosen, developed and implemented to address SHS?
- ST 1.3 What barriers and facilitators are Community Partners facing in developing and implementing activities?
- ST 1.4 What lessons learned from Community Partners active in monitoring CIAA implementation can be shared with other Community Partners?
- ST 1.5 What types of activities and outreach are Community Partners employing to educate community members, employers, and the media about the dangers of SHS?
- ST 1.6 What resources are being disseminated by the Community Partner to educate businesses and employers about the CIAA?
- ST 1.7 What strategies have been identified and/or implemented by Coordinated School Health Networks, Community Partners, and the TCP to promote smoke-free schools?
- ST 1.8 What are Community Partners doing to monitor and increase CIAA compliance among local businesses and employers?

ST 1.1 through 1.4 will be answered through our case study approach for the six selected sentinel sites and supplemented through the Community Partner Reports and CIAA Tracking Form data for all of the Community Partners. As described above, data from the sentinel sites will involve conducting semiannual site visits in which we will interview a number of key informants, including Community Partner members, opinion leaders from the community, and a select subset of Community Partners. To answer these evaluation questions, we will speak with leaders and key members of the Community Partnerships to elicit the following types of information:

- What challenges arise in implementing SHS activities, and how are these dealt with?
- What partnerships and collaborations have Community Partners formed to further their objectives of increasing SHS awareness?
- What partnerships and collaborations have changed over the course of implementation and why?
- What are the lessons learned from these sites in terms of how to best implement these efforts?
- How does the composition of the Community Partner effect its functioning?
- What types of individuals should be/have been, but currently are not, involved with the Community Partner?

From the case study findings, we will be able to draw conclusions about factors important to effective implementation of program objectives.

To address ST 1.5 through 1.8, we will use the enhanced Community Partner Reports submitted by each Community Partner on a monthly basis. These reports will provide data on the specific activities and outreach being conducted, including who is involved in implementing the activity, the intended reach and target population of the activity, and the purpose of the activity. Furthermore, these reports will track the materials and resources disseminated to the public, employers, and the media by the Community Partners. The Community Partner Reports will highlight the action being taken by the Community Partners alone, as well as joint efforts between

the Community Partners, TCP, and other state and local organizations and partners such as the Coordinated School Health Networks. Using data from these reports, we can assess the difference in breadth of activity between the Community Partners and gain an understanding of what information is being disseminated to the public and how. Additionally, this information will provide the program with an idea of what activities and strategies are working and assist in highlighting “best practices” to be shared with Community Partners throughout the state.

Short-term Quantitative Evaluation Questions

- ST 1.9 To what extent does the public support the implementation of the CIAA?
- ST 1.10 To what extent are businesses complying with the CIAA? How has the CIAA impacted the level of SHS exposure among employees?
- ST 1.11 To what extent do New York State high school and post-secondary educational institutions currently have smoke-free policies in place? To what extent are these policies enforced?

To address ST 1.9, we will perform descriptive analyses of the data from the ATS that ask respondents about their awareness and support of the CIAA as well as how they learned about it. Similarly, the EHS can also address these questions among bar, restaurant, and bowling establishment workers immediately prior to the CIAA and at planned 3- and 6-month follow-up surveys. Additionally, two surveys by RPCI (the International Tobacco Control Policy Survey [ITCP] and a survey of Erie and Niagara County residents) and the CPS have general measures (not specific to New York’s CIAA) of support for CIA policies. The CPS and ITCP permit comparisons between New York State residents and residents in other areas. By examining the levels and trends in these variables in New York State and elsewhere, we can better isolate the impact of the CIAA.

Several sources of data can be used to address ST 1.10 (compliance with the CIAA). The ATS, one of the primary evaluation tools for this evaluation, includes questions on the official smoking policy within workplaces for both work area and indoor public and common areas. We will want to consider adding a question to the ATS on the type of workplace for those employed to understand how compliance varies by type of workplace. The extent to which the official policy is enforced is not fully addressed by the ATS. To address this concern, we will abstract data from the state’s CIAA violation hotline to assess the number of complaints regarding CIAA violations. Clearly, this measure is not infallible as the decline in reported violations may be a function of awareness of the hotline or perceived importance of reporting the violations rather than an actual change in the number of CIAA violations. However, we will assume that barriers to using the violations hotline remain more or less consistent after implementation and therefore a change in complaints will reflect a change in actual violations. An additional question on the ATS does ask whether the respondent was exposed to smoke at the workplace within the past several days, but the degree of exposure to the individual is unavailable. That may be worth revisiting in the future.

In addition to the ATS, the Current Population Survey Tobacco Use Supplement (CPS-TUS) provides state representative data on the official workplace smoking policy as well as for indoor

public or common areas within the workplace. It also has detailed industry and occupation codes that may help us understand the impact of the new law on employers previously not covered by the CIAA. An additional measure on SHS exposure within the workplace provides information on whether any SHS exposure occurred during the past 2 weeks. The advantage of the CPS is that it can provide comparison data from states without comprehensive CIA laws, which will be useful for assessing the impact of New York's CIAA. The HeartCheck workplace study and the two RPCI surveys provide additional data on the prevalence of workplace smoking policies but may provide a limited amount of data on workplaces that have only recently been covered under the CIAA.

The EHS can be used to address this gap with a relatively larger sample of hospitality workers and their attitudes toward the CIAA. Finally, an observational study implemented by the Center for Tobacco-free New York provides data on CIAA compliance. Follow-up data collection is planned for 6 months post-CIAA implementation and subsequent follow-up at regular intervals. Individuals will visit newly covered local workplaces, such as bars and restaurants, to observe firsthand the degree to which these establishments are in compliance with the CIAA. A common methodology for conducting the observational study will be developed so that all Community Partners collect observational data in a systematic fashion and within the same timeframe (as described above).

ST 1.11 will also rely on a combination of data sources. To assess the existence of smoke-free policies in high school and post-secondary educational institutions, a collaborative effort between ACS/CAAT and the TCP will identify and catalog existing policies. Although the details of this effort have not yet been developed, this inventory should be conducted periodically to reflect the changing smoke-free schools environment. In addition, we have recommended an observational study that will document the extent of smoking occurring at educational institutions with and without smoking policies, where smoking is occurring within the educational institution, and when smoking violations occur (e.g., before school, during lunch, between classes). One potential extension of this observational study would be for selected youth volunteers to be trained by Community Partner members in intercept interview methods to conduct short, informal, "person on the street" style interviews with youth smokers to understand the extent of enforcement of the smoke-free policies within these educational institutions. The combination of data sources—smoke-free policies inventory and observational data—will provide a comprehensive understanding of the current smoke-free policies within New York State educational institutions to serve as a baseline measure to later assess progress made in achieving the objectives of Goal 1.

Initially, the primary analyses of interest will include simple descriptive analyses of how policies vary over time and by region and other factors.

Intermediate-term Evaluation Questions

The following intermediate evaluation questions measure the progress made toward the overall goal of eliminating exposure to SHS.

Intermediate-term Qualitative Evaluation Questions

- IT 1.1 How have the partnerships and collaborations among groups changed over time? Have new partnerships formed? Is there significant turnover in the individuals involved in the partnerships? What activities are they emphasizing?
- IT 1.2 What factors associated with partner collaborations seem most effective?
- IT 1.3 What policy changes have occurred in the community as a result of the Community Partners and TCP activity (e.g., new policies for smoke-free vehicles)?

Community-based data collection will be used to answer IT 1.1 through 1.3. We plan to conduct semiannual site visits to each of the selected sites over a 3-year period. These subsequent visits to the sentinel sites will be needed to assess the changes in the Community Partners and progress made toward achieving goals and objectives. These follow-up visits will involve interviews with many of the same individuals in the Community Partners or their replacements if there has been turnover. We will ask many similar questions as the initial site visit, probing to understand the changes that have taken place over time.

To answer IT 1.1, we will focus on the organizational changes that have occurred, why these changes occurred, and how they were handled. Speaking in-depth with various key Community Partner members will help us understand the impact of these coalition changes on their ability to meet their goals and objectives.

Similarly, to address IT 1.2, interviews with Community Partner members and partners will help us understand which Community Partner collaborations are most effective at meeting Goal 1 objectives. Interview questions will address such issues as

- who is involved with the collaboration,
- how long have the groups been working together,
- how do the different groups communicate and interact,
- what methods seem to work well in facilitating close collaborations, and
- what are the outputs (e.g., resources, educational materials) resulting from this collaboration.

To assist in assessing partnerships and collaborations across sites, we may want to develop a checklist of traits or characteristics of effective partnerships based on our experience with the American Legacy Foundation's Youth Empowerment Initiative and a supplemental review of the literature. Our previous work on developing and maintaining effective partnerships and coalitions would provide us with some qualitative and quantitative measures of effective group organization.

Answering IT 1.3 will involve interviews and data collection from individuals within the TCP who are involved in building partnerships with the automobile rental agencies and the New York State Commissioner of Insurance with the goal of creating new SHS-reducing policies. The interviews would focus on eliciting similar information as described above, such as who the TCP is collaborating with, how frequently the groups are working together, and what steps have been taken toward implementing new policies.

Intermediate-term Quantitative Evaluation Questions

- IT 1.4 How has support for the CIAA changed since the implementation of the CIAA? To what extent has this been influenced by Community Partner activities or other factors (e.g., demographics)?
- IT 1.5 Has there been an increase in CIAA compliance among businesses since implementation of the CIAA? How has exposure to SHS among employees changed since the implementation of the CIAA? To what extent have the Community Partners influenced compliance with the CIAA?
- IT 1.6 To what extent is the public aware of Community Partner activities and media campaigns? How have these efforts increased awareness of the dangers of SHS?
- IT 1.7 Has the number of high school and post-secondary educational institutions that are smoke-free changed? To what extent have efforts by the Community Partners and Coordinated School Health influenced this change?

To understand IT 1.4 and 1.5, we will conduct a follow-up to the data collection and analyses that was outlined under short-term secondary data analysis. That is, both the ATS and EHS will be used to assess support for the CIAA, while the CPS, ITPC Survey, and the survey of Erie and Niagara County residents will report on support for CIA policies in general. The ATS will be conducted quarterly on an ongoing basis, while the EHS will collect data at 3 and 6 months post-CIAA implementation. Compliance with the CIAA can be reassessed through the ATS, CPS, EHS, HeartCheck workplace survey, observational data, and data from registered complaints. We will use quarterly data from the ATS to examine overall trends, trends by region, and trends for areas that passed local laws prior to the state law (e.g., New York City) to examine if there are differences in CIAA support and compliance. Furthermore, we will merge measures of Community Partner activities and news media coverage (e.g., volume, slant) at the county level to ATS and explore the correlation between CIAA support and CIAA compliance with intensity of Community Partner activity and the level of coverage in news media. We will conduct similar analyses to examine the correlation between CIAA violation complaints and Community Partner activities and between self-reported awareness of paid media and support for the CIAA.

IT 1.6 examines changes in awareness of the dangers of SHS and its correlates. We will first present summary statistics from both the ATS and YTS (and youth cohort). These surveys report on awareness of the health effects of SHS, and because they are conducted on an ongoing and consistent basis they allow for trend analysis. Separate analyses can be conducted to look at differences in SHS awareness by age, race/ethnicity, education level, income, and geographic location. This will help to understand the possible reach and impact that TCP activities have had on these different populations.

To understand the extent to which the public is aware of Community Partner activities and media campaigns (when relevant), we used the measures of confirmed awareness of media messages in the ATS and modified the ATS to include questions on awareness of Community Partner activities by examining Community Partner Monthly Reports and the Community Case Study. These questions will be developed by RTI on an ongoing basis to reflect the changing focus and activities

for Community Partners. While it is difficult to attribute changes in knowledge and behavior to specific program activities, we will attempt to tease out the impact of the paid media, earned media, and Community Partner activities in a number of ways. First, we can examine correlations between attitudes about SHS (SHS causes a series of illnesses, such as lung cancer, heart disease, colon cancer, stroke, and/or erectile dysfunction) and self-reported confirmed awareness of paid media messages in the ATS. To the extent that the intensity of paid media efforts varies by media market, that can help us further isolate the impact of these efforts. A similar strategy can be used for self-reported awareness of community-based activities.

Another strategy involves using multilevel models where we merge county-level measures of Community Partner activities and news media coverage relating to SHS to the ATS data to assess the extent to which they are correlated with attitudes. These models will also capture the influence of cigarette taxes, other relevant policy changes, race/ethnicity, age, and other key variables. This can be replicated with the YTS as well.

The extent to which smoke-free school policies have changed (IT 1.7) can be answered using the school policies survey, smoke-free policies inventory compiled by the ACS/CAAT and Community Partners, and the proposed observational study. This round of data collection will allow us to see what changes have occurred regarding the presence of smoke-free policies in educational institutions.

Long-term Evaluation Questions

Long-term Qualitative Evaluation Questions

- LT 1.1 How have the Community Partners and their partnerships/collaborations changed since their inception? How has this impacted their efforts?
- LT 1.2 How have Community Partners effectively addressed the barriers and facilitators they encountered?
- LT 1.3 How have the types of activities and strategies implemented by the Community Partners to address SHS changed since the inception of the program?

The purpose of LT 1.1 and 1.2 is to understand how the Community Partners and their partnerships with other local organizations have changed since their inception. Presumably, the Community Partners have experienced staff and volunteer turnover as well as other challenges and barriers during the development and implementation of strategies to address SHS. We are interested in learning what challenges arose, how these Community Partners handled the issues they faced, and facilitators in meeting their goals and objectives. This information will be gathered through several data sources as described in previous sections for our community-based data collection. These include one-on-one interviews with key Community Partner staff and members of other local collaborators during semiannual site visits, as well as ongoing contact with local staff/volunteers to monitor their progress within the six selected sentinel sites. Because we will be speaking with Community Partners throughout the state, we can compare how different Community Partners handled situations and what strategies worked best in overcoming adversity.

LT 1.3 explores how the changing tobacco control environment has altered Community Partner activities and campaigns. At the beginning of the program, Community Partners will focus attention on raising awareness of SHS; however, this focus will likely change as the program continues. Community Partner Reports, submitted on a monthly basis, will be used throughout the program to collect and record partner activities, thus allowing us to note the change in activities, their scope, and intended target audience. Additionally, findings from the Community Partner Reports can be explored in more depth during case study site visits if questions or issues arise when reviewing the submitted reports. Focusing on these during case study site visits will allow us to put context to the information included in the Community Partner Reports.

Long-term Quantitative Evaluation Questions

- LT 1.4 How has the number of people with smoking restrictions in homes and vehicles changed over time? How are various factors (e.g., CIAA, awareness of SHS media messages, news media coverage, Community Partner activities, efforts to promote cessation) associated with implementation of smoke-free home and vehicle restrictions?
- LT 1.5 Has SHS exposure decreased over time? What factors contribute to these changes (e.g., CIAA, changes in home restrictions, awareness of SHS media messages, news media coverage, Community Partner activities, smoking cessation, decreases in cigarette consumption)?
- LT 1.6 Have changes in exposure to SHS impacted health outcomes (e.g., acute myocardial infarction [AMI], asthma, and other respiratory illness)?
- LT 1.7 Has the CIAA had any positive or negative impacts on employment and/or sales in the hospitality industry?

To answer LT 1.4, we will rely on data from the ATS that report on the rates of smoke-free home and vehicle policies and the CPS that ask about home policies. Since ATS data will be collected quarterly, we will have a series of data points to compare. We will present descriptive summary statistics as well as an analysis of the association between the likelihood of having a smoke-free ban and other variables, such as presence of children in the household, education level, age, and race/ethnicity. Additionally, we will examine correlations (and multiple regressions) between smoking restrictions in homes and vehicles and self-reported attitudes toward SHS, awareness of and exposure to paid and earned media, awareness of Community Partner activities and Community Partner reporting activities data, and intentions to quit and smoking cessation. Although the CPS does not contain a wealth of relevant program-related influences, it does permit us to contrast trends in the prevalence of home policies over time between New York State and other states. Both the ITCP Survey and a survey of Erie and Niagara County residents can be used to provide additional data on smoking behavior and home smoking restrictions.

Similarly, we will address LT 1.5 using the ATS and CPS. However, in addition, we can examine changes in exposure to SHS among hospitality workers with the EHS and Western New York-Employee Health Study (WNY-EHS). Each of these surveys asks respondents whether anyone has smoked in their work area in the past (ATS, past several days; CPS-TUS, past 2 weeks; and EHS,

past 7 days). In addition, the EHS collects saliva cotinine levels, and the WNY-EHS collects blood cotinine levels and pulmonary tests.

Using hospital discharge data, we will examine trends in the number of hospitalizations for AMI and asthma attacks before and after the CIAA effective date. Discharge data are available annually, approximately 1 year following the close of the calendar year, and provide the diagnosis at discharge, county of residence, date of admission and discharge, and other demographic and hospitalization-related information. Per capita rates of AMI in New York State will be compared annually as well as historical county-specific rates from locations that have previously implemented CIA regulations, including New York City, Suffolk County, and Westchester County.

Finally, we can examine semiannual data on taxable sales from “eating and drinking establishments” and “retail trade” for each county in New York State from the New York State Department of Taxation and Finance to examine pre-post CIAA trends in these measures to address LT 1.7. Businesses are classified into a particular business according to the code reported on their income tax returns using the federal Standard Industrial Classification (SIC) coding system. The codes for “eating and drinking places” are 58.10–58.13, the codes for “retail trade” are 52.00–59.99, and the codes for hotels are 70.10–70.41. To assess possible employment effects, we will examine trends in hospitality and nonhospitality employment before and after the CIAA implementation to see if these two groups differ as a result of the CIAA. Data on the number of employees in restaurants (SIC code 58.12), bars (SIC code 58.13), and hotels (SIC codes 70.11) will be obtained monthly for each county in New York from the NYSDOL. Virtually any business that pays any employees in a given quarter must submit a report to the NYSDOL stating the number of employees they had in each month during that quarter for the purposes of determining unemployment insurance premiums and their quarterly payroll. Per capita employment in these industries and an appropriately created comparison industry group in New York State will be compared for the period before the law and after the law.

4.3.2 Goal 2: Decrease the Social Acceptability of Tobacco Use

Goal 2 of the TCP is to decrease the social acceptability of tobacco use. To achieve this goal, four separate objectives have been identified, which focus on increasing antitobacco attitudes among youth and adults and on decreasing the prevalence of tobacco advertising and promotions. These objectives are primarily to be achieved through countermarketing media campaigns and community activities:

- Increase antitobacco attitudes among youth and adults.
- Reduce tobacco sponsorship of sporting, cultural, and entertainment and other events in the community, region, and state.
- Reduce tobacco use and promotion in movies, arts, and entertainment.
- Reduce the proportion of retailers that post point-of-purchase tobacco advertising.

There is considerable evidence that tobacco countermarketing can be an effective tool for reducing smoking prevalence. Antismoking messages mandated in the late 1960s and early 1970s

by the Fairness Doctrine were successful in reducing aggregate smoking (Warner, 1977, 1979). State and local countermarketing efforts in the 1980s were successful in reducing smoking initiation among teens, particularly when combined with a school- or community-based program (Flynn et al., 1992; Perry et al., 1992). More recently, evidence from several states and the national truth® campaign highlights the importance of countermarketing as a major component of comprehensive tobacco control programs (Pierce et al., 1998; Hu, Sung, and Keeler, 1995; Siegel and Biener, 2000; Sly et al., 2001; Farrelly et al., 2002).

Community activities aimed at countering tobacco marketing and promotions present in movies, entertainment, and arts, as well as point-of-purchase advertising found in retail establishments, will conceivably work in concert with antitobacco media campaigns to influence attitudes about tobacco use and to ultimately decrease the social acceptability of tobacco use. In essence, the TCP aims to concurrently increase exposure to antitobacco information (via media campaigns) while decreasing exposure to tobacco marketing and promotion through community-based activities.

Countermarketing (paid media campaigns in particular) is among the most costly but also most visible components of a comprehensive tobacco control program. As a result, the campaign may be watched more closely by supporters and critics alike, and expectations for change may be more stringent than for other tobacco control program elements.

Media evaluation is an inherently complex task. To start, media messages are diffuse; it is difficult to adequately control for campaign exposure within a geographic location because the mass media (television, radio) reach the overwhelming majority of the population. Campaign messages can diffuse through social channels (communication between individuals) to motivate individual changes in behavior or institutional channels (legislators, city councils, or trade organizations) to create policy change (Hornik, 2002).

In addition, the multifaceted nature of the TCP presents challenges to the specific evaluation of the media campaign(s). The “gold standard” of program evaluation involves a controlled experiment, whereby the evaluator compares communities that receive the campaign (intervention group) with those that do not (control group). In practice, this technique has involved comparisons between geographically similar states. In the context of diverse and multifaceted tobacco control programs being implemented in New York and neighboring states, it is nearly impossible to find a state for a viable comparison. However, other options exist to bolster evaluation efforts, including detailed measures of campaign awareness over time, tracking changes in key beliefs and attitudes, and conducting longitudinal surveys (Hornik, 2002). In addition, it may be worthwhile to consider manipulating the media buy across New York’s nine media markets to better isolate the impact of the campaign.

Countermarketing evaluation requires methodologies that can specifically address these complicated issues that New York will face in assessing the impact of the countermarketing campaigns. One of the significant challenges to the current countermarketing efforts is that there

does not appear to be an overall strategic plan or logic model for the media campaign that spells out the (1) ads or messages that will be used; (2) theory and evidence-based criteria for selecting ads and messages; and (3) advance planning for the evaluation of the media campaign, including consideration of a baseline (pre-test) measurement. Without a cohesive strategy for media that spells out how and in what ways the media campaign is expected to work, it is unlikely that the program will achieve its goals and unlikely that attempts to evaluate the campaign will demonstrate an impact.

In general, five central components are necessary to attribute effects to a countermarketing campaign, provide defensible results for program accountability, and provide feedback to campaign planners in refining and improving the campaign:

- The countermarketing campaign(s) achieve a meaningful level of exposure and awareness among the target population(s).
- The target population(s) understand and react positively to campaign messages
- Short-term (increased volume of Quitline calls, awareness of industry manipulation), intermediate (changes in beliefs/attitudes and normative beliefs, increased quit attempts), and long-term (decreased smoking initiation, increased sustained cessation) outcomes change in the desired direction.
- Those who were frequently exposed to the campaign show larger changes in outcomes than those who were exposed less frequently or not exposed.
- Other potential explanations for the observed changes in outcomes (other TCP components, tax increases, and secular trends) are accounted for or ruled out.

Below, we discuss several research questions that relate to the objectives of Goal 2, as well as to smoking attitudes and behavior in youth and adults. We also discuss the extent to which evaluation activities and existing data sources can be used to address these questions.

The evaluation questions below are grouped by short-term, intermediate, and long-term outcomes to correlate with the measurements previously discussed. It is important to look at the short-term and intermediate measures as they capture progress made toward the ultimate goal of preventing youth and young adults from initiating tobacco use.

Short-term Evaluation Questions

Short-term evaluation questions are focused on the process of implementing program activities toward achieving each of the four objectives and on tracking the near-term effects of those activities on smoking-related outcomes. Short-term process outcomes are intended to assess if community and media partners are carrying out planned activities and if target populations are being reached.

Short-term Qualitative Evaluation Questions

- ST 2.1 In what ways have Community Partners engaged policy makers and stakeholders in raising awareness and support for restrictions on point-of-purchase tobacco advertising and tobacco sponsorship?

- ST 2.2 Have Community Partners educated local retailers on the hazards of tobacco use and the role of point-of-purchase advertising in promoting tobacco use? What strategies for educating have been put into place?
- ST 2.3 To what extent have Community Partners worked with the media contractor to develop a media campaign raising public support for local cigarette excise taxes?
- ST 2.4 What factors seem to enhance the overall performance of the grantees?
- ST 2.5 What common barriers are grantees facing? What are the facilitators to successful collaborations?
- ST 2.6 Are grantees successfully implementing their plans/objectives?
- ST 2.7 What is the level/type/extent of activities in which grantees are engaged?
- ST 2.8 Are grantees coordinating their activities as recommended by the NYSDOH (e.g., coordinating certain activities with statewide media campaigns)?
- ST 2.9 What is the reach of the community grantee's activities, both in terms of individuals targeted and organizations? How does the actual reach compare with the intended reach?
- ST 2.10 Are grantees coordinating their activities as recommended by the TCP (e.g., coordination of certain activities with statewide media campaigns)?
- ST 2.11 How have efforts to better coordinate community grant activities with state activities affected community grants?
- ST 2.12 What is the level/type/extent of activities in which the grantees are engaged?

Short-term Quantitative Evaluation Questions

- ST 2.13 To what extent are members of each campaign's target audience being reached by countermarketing messages?
 - ST 2.13a What percentage of teens is aware of New York's countermarketing campaigns and specific campaign messages?
 - ST 2.13b What percentage of adults is aware of New York's countermarketing campaigns and specific campaign messages?
- ST 2.14 How does each target audience react to the messages? Do they find them persuasive?
- ST 2.15 To what extent does exposure to the countermarketing campaign empower youth to join and participate in Reality Check?
- ST 2.16 Which specific advertisements or campaign messages are youth and adults most responsive to?
- ST 2.17 Have key stakeholders', organizations', and legislators' knowledge been increased regarding the impact of point-of-purchase advertising and tobacco promotions on youth and adult tobacco use prevalence?

Evaluation Activities to Address Short-term Evaluation Questions. *Qualitative Methods/Studies.*

Qualitative methods will be designed and implemented to assess the role and effectiveness of the Community Partners in contributing to TCP objectives (ST 2.1 through 2.13). These qualitative measures will provide information regarding the processes by which Community Partners and other grantees are operating, and how these groups communicate with and influence key

stakeholders and decision makers. Through this approach, an understanding of what is working (and what is not) in each of the communities will emerge.

To help control data collection costs, we recommend working with NYSDOH to select a subset of counties as sentinel sites for this outcome assessment, as referenced earlier in the case study methodology. By working with a subset of the counties, we will be able to collect more detailed information about the coalition activities, as well as other tobacco-related activities that may be going on in the county.

We will work with NYSDOH to determine how many and which communities to visit. In selecting the sites, we will review the grant proposals and report data and work with NYSDOH, to ensure that we include communities with a history as strong performers, as well as some who may have had significant obstacles to overcome.

Through these site visits, we will explore how the community coalition operates along with changes that have occurred as a result of the funding. For these site visits, interview protocols will be developed to specifically address research questions ST 2.1 through 2.12. The qualitative nature of this approach also allows for the collection of data that may not have been considered by evaluation planners previously. One of the key strengths of qualitative methods is that they allow for significant feedback from program participants and stakeholders, and research questions are likely to expand and change as new information is gained.

We will take into account possible differences across counties due to variations in funding of community activities. To allow in-depth exploration across the diverse range of activities and geographic areas, we will conduct a comprehensive evaluation of community activities in the sentinel counties. We will begin by developing a detailed site visit protocol that specifies who will need to be interviewed during a site visit, and we will map the individuals to be interviewed to the types of questions they will be answering for each type of person interviewed. Prior to beginning our site visits, we will work with the NYSDOH staff responsible for the different grantees to identify key stakeholders at the community level and obtain background information on the coalition and community. For each site visit, we plan to talk with the Community Partner leader responsible for the contract and any staff directly working on the contract activities. If and when appropriate, we propose to conduct focus groups with the coalition members and, ideally, with some individuals who have participated in, or received services from, the grant activities.

In addition, we recommend conducting a survey of community leaders (both involved in the coalition and those with no known participation in the coalition) in the sentinel site counties to assess changes in attitudes, awareness, and actions related to community norms, policies, and practices. Within the sentinel counties, we will work with the Community Partners to identify a core set of community leaders involved in tobacco-related activities, as well as in other less specific areas, such as business leaders or school administrators. We also will seek assistance from the state to identify potential leaders who are not involved with the coalition. We will develop a structured interview questionnaire to assess these leaders' observations of community

practices; perceived barriers and facilitators for tobacco prevention and control in the community; access, reach, and dissemination issues; and perceptions of community norms, attitudes, and policy. We recommend conducting an annual survey with these community leaders to assess any changes in the community environment. Because these surveys will be done in our sentinel counties, we can also correlate these changes to any community changes to the detailed activities of the coalition.

Quantitative Methods. **Evaluation of media campaign.** Based on media plans and purchasing patterns, levels of exposure to countermarketing are likely to vary between media markets. As a result, evaluators can compare changes in knowledge, attitudes, social norms, and behaviors related to tobacco use between exposed and unexposed counties to aid evaluation. Estimates of potential exposure through television and radio broadcasts (measured in Gross Ratings Points, or GRPs) can be calculated using data from Nielsen Media Research on the audience for a particular program at a particular time. These data would provide more useful estimates of exposure and help us place information about campaign awareness into context. In addition, GRP data, when combined with awareness data from surveys, can help identify which ads are remembered and which ones are not. This information will provide necessary data for assessing ST 2.14 and can help campaign planners improve and refine future advertisements.

The ATS, as the primary tool for evaluating overall TCP efforts aimed at adults, has the potential to fit the needs of several countermarketing campaign evaluations. The ATS surveys adults aged 18 and over, the target audience for six of the eight specific campaigns. However, baseline sample sizes are not sufficient to calculate precise estimates or gauge program impact among smaller demographic groups. For example, it is unlikely that the ATS sample size is sufficient to gauge the impact of campaigns specifically targeting 18 to 24 year olds or parents who smoke. As a result, we recommend that the NYSDOH enhance the sample representation of 18 to 24 year olds and parents who smoke to provide sufficient sample sizes to detect campaign impact. In this scenario, the ATS could be used as the primary evaluation tool for assessing attitudes and behaviors among 18 to 24 year olds or parents who smoke.

The ATS provides considerable information relevant to countermarketing evaluation. However, it does not currently meet the evaluation needs for the specific New York State media campaign(s). The addition of several domains would enhance the survey to provide the most compelling and useful evaluation data. These specific items would measure ST 2.14 and ST 2.18–2.19 and could be asked only of the population groups for whom they are relevant:

- Awareness of the Hollywood–Part II Initiative
- Beliefs about tobacco industry sponsorship of events
- Beliefs about the portrayal of smoking in movies
- Beliefs about tobacco industry practices targeting 18 to 24 year olds

The YTS also provides considerable information relevant to countermarketing evaluation, particularly for intermediate and long-term outcomes. However, campaign awareness measures

are not sufficient to gauge awareness of New York countermarketing activities in particular. In addition, there are few items that inquire about beliefs about tobacco portrayals in television and film, the content of the “Hollywood–Part II” initiative. As a result, we suggest that evaluators enhance the measurement of campaign awareness and on-screen portrayals of cigarette smoking in future waves of the YTS. Awareness measures that allow respondents to specify campaign slogans and themes would allow evaluators to differentiate between New York and national efforts and would allow for some basic measurement of research questions ST 2.14 and ST 2.16. Beliefs about on-screen smoking portrayals would allow evaluators to identify changes over time in intermediate campaign outcomes.

Even with the proposed enhancements described above, the YTS is not an optimal countermarketing evaluation instrument. The timing of the survey does not provide frequent feedback to campaign planners. Self-administered surveys are not optimal for gauging awareness of and reactions to specific campaign messages. In addition, the YTS only measures students in grades 6 to 12, with approximately 12 to 18 year olds. However, several youth-focused campaigns explicitly target youth aged 10 to 13. Given these limitations, an alternate source of evaluation data for youth and teens is warranted.

We recommend that the NYSDOH consider implementing a longitudinal survey of youth and teens (10 to 16) in which the same respondents are surveyed repeatedly over time. This survey would provide more accurate and detailed information about the effects of exposure to media campaigns and antitobacco activities and would explicitly measure research questions ST 2.14–2.16 and ST 2.19. Longitudinal designs provide stronger causal evidence for changes at the individual level and eliminate concerns about “selective attention” (whereby smokers or nonsmokers may be more likely to remember countermarketing messages, which can bias cross-sectional survey results in one direction or the other). Longitudinal data allow evaluators to assess changes in key outcomes among individuals and gauge the relationship between these changes and exposure to the paid media campaign.

It would also be possible to conduct a semicontrolled experiment where levels and types of media are purposively varied across New York’s nine media markets. Although contamination between markets is to some extent unavoidable, evaluators would be able to identify effects based on measures of potential and perceived exposure to various media. This approach would provide a formative benefit as well, as media characteristics most highly associated with effects could be identified for use in future media campaigns.

A key feature of this new survey would be a media tracking module. A media tracking design typically involves the collection of data through telephone surveys timed to mirror the campaign’s broadcast schedules. Media tracking allows evaluators to capture trends in ad awareness and relevant beliefs, attitudes, and behaviors. In addition, tracking surveys provide the opportunity to measure and control for exposure to other national campaigns, other program components, and environmental factors. This can help to make the argument that the countermarketing campaign(s)

was responsible for changes in outcomes. Tracking designs can also provide data on responses to ads, which can help refine advertising, understand why it may or may not have gotten the message across, and examine whether certain ads may “wear out.” Again, this type of evaluation requires advance planning to ensure that data collection coincides with media releases and that tracking questions mirror the content and themes of current ads.

The ATS includes a longitudinal component that will provide stronger causal evidence of adult-focused countermarketing campaigns. By following a certain group of adults over time, changes in attitudes and behaviors can be more directly linked with program messages. Awareness and comprehension of, and receptivity to, specific ads will enable us to decipher which ads are producing the desired results. Ultimately, these data will allow for the analysis of associations between exposure to TCP components and beliefs about (support of) CIA laws and restrictions on point-of-purchase advertising and tobacco sponsorship.

Evaluation of Community Partner activities. Primary data that will be available to evaluate community-based activities come from the ATS, YTS, and the Community Partner Reports. With these data, we propose descriptive analyses and assessments of the Community Partner Reports to understand the breadth and depth of activities.

We propose to conduct descriptive and multivariate analyses where Community Partner Reports data are matched to the ATS by county of residence:

- Comparisons of self-reported exposure to community-based activities to level of grantee activity
- Multivariate analyses of the link between program outcomes and level of various community-based activities

In addition to the detail-rich information to be gained from the qualitative method described previously, we will assess outcomes and explore relationships between the number and extent of community-based activities and changes in behaviors, attitudes, and knowledge. For example, we would explore the relationship of various youth prevention activities to decreases in youth who are starting to smoke. We would hypothesize that communities with higher levels (both in number and quality) of educational and countermarketing activities will have proportionately higher rates of antitobacco attitudes or lower levels of social acceptance of tobacco use.

To measure changes in outcome variables associated with the community grant activities, we will merge county-level measures of community activities to the YTS and ATS by county of residence. Using multilevel analysis methods that account for clustering of respondents within counties, we will analyze the correlation between grant activities and individual outcomes. With only 1 year of data, we can only look at cross-sectional correlations. However, with several waves of these surveys, we can control for baseline levels of the outcomes and county-level activities and observe the link between changes in outcomes over time and changes in county-level activities. This is important because “high” functioning coalitions or grantees may be in the counties with a preexisting higher level of capacity for tobacco control and lower smoking rates, which would

lead to a spurious negative correlation between smoking and activities. However, by controlling for baseline levels, we level the playing field by making each county a control for itself.

Working with the current ATS and YTS and the proposed longitudinal youth telephone survey, we will develop a series of questions that will be added to the ATS and YTS that will allow us to more closely track exposure to, awareness of, and behavioral changes attributed to the community grant activities within the targeted community. For example, we will assess community members' awareness of the coalition with grant funding as well as awareness of and participation in grant activities. Community-level activities will be assessed through the data tracking sheets communities are asked to complete. Key aspects of activities considered relevant to individual outcomes include reach (e.g., for whom was the event intended and did in fact this group attend), dissemination (e.g., what was distributed or provided), participation (e.g., how many attended), and frequency (how often was the event conducted). With self-reported information from surveys, we can also explore the correlation between individual awareness of activities and program tracking data.

Intermediate-term Evaluation Questions

Intermediate-term questions are intended to assess the continued progress of the TCP toward achieving the objectives of Goal 2.

Intermediate-term Qualitative Evaluation Questions

- IT 2.1 In what ways have communities demonstrated that there has been an increase in awareness and support in the community for restrictions on point-of-purchase tobacco advertising and tobacco sponsorship?
- IT 2.2 Have local ordinances restricting point-of-purchase tobacco advertising and advertising near schools, parks, and playgrounds been introduced and debated in the political sphere as well as in the community?
- IT 2.3 How have Community Partners worked to increase knowledge and awareness of local leaders and others? Have Community Partners educated key stakeholders through various forums and other mechanisms about the beneficial impacts of restrictions on point-of-purchase tobacco advertising and advertising near schools, parks, and playgrounds? How did they deliver this training/education? What trainings/materials were the best received and why?

Intermediate-term Quantitative Evaluation Questions

- IT 2.4 What percentage of teens is aware of New York's countermarketing campaigns and specific campaign messages?
- IT 2.5 To what extent does exposure to the campaign reduce perceptions among teens about the number of people their age who smoke?
- IT 2.6 To what extent does exposure to the countermarketing campaign empower youth to join and participate in New York's Reality Check?
- IT 2.7 What proportion of youth believe that they can resist peer pressure to smoke?
- IT 2.8 Has the number of young people who report that they would not wear or use something with a tobacco name or picture on it increased?

- IT 2.9 Are youth exposed to tobacco prevention messages more or less likely to think people who smoke cigarettes have more friends?
- IT 2.10 Are youth exposed to tobacco prevention activities more or less likely to believe that smoking does not make them look cool or fit in?
- IT 2.11 To what extent does exposure to the campaign reduce perceptions among college students about the number of people their age who smoke?
- IT 2.12 Has awareness of tobacco promotion on movies, art, and entertainment increased among adults?
- IT 2.13 What percentage of adults is aware of New York's countermarketing campaigns and specific campaign messages?
- IT 2.14 Does exposure to campaign messages increase tobacco-related knowledge, beliefs, and attitudes targeted by campaign messages?
- IT 2.15 Were there any changes in the knowledge, beliefs, or attitudes for individuals living in communities with grant funding relative to the areas of emphasis for the grant?

Evaluation Activities to Address Intermediate-term Evaluation Questions. *Qualitative Methods/Studies.* News media tracking and community-based surveys and structured interviews with key stakeholders will answer IT 2.1. A news media tracking service will provide insight into the level of debate (and hence awareness and support) among the community regarding restrictions on point-of-purchase tobacco advertising and tobacco sponsorship. A media tracking system will monitor and provide data on the numbers of articles, op eds, and letters to the editors published in local media outlets. RTI will modify the ATS to determine community-wide support for increased local cigarette taxes and will conduct structured interviews with key stakeholders for a more in-depth analysis of awareness, support, barriers, and successes in raising local excise taxes.

Conducting structured interviews is part of the broader qualitative case study framework detailed in Section 3.5. Interviews of key stakeholders and legislators seek to accomplish two primary goals: (1) to assess the level of awareness regarding local tobacco use and the effects of tobacco company promotion and advertising; and (2) to determine the level of community support for policies aimed at reducing the exposure to tobacco promotions, advertising, and sponsorship in order to reduce smoking prevalence among youth and young adults. This measure illustrates the transition between the short-term knowledge change from the education and media campaigns to a shift in attitudes among community members.

Structured interviews with key stakeholders and legislators will be conducted by RTI at sentinel sites as detailed in the qualitative case study framework. Structured interviews also provide an opportunity to assess barriers encountered in local efforts to increase excise taxes and conversely, enable a discussion of what methods were successful. This level of detail on the process of passing local excise taxes provides valuable examples for other jurisdictions to learn from as they reform their cigarette tax laws.

As part of their responsibilities regarding the promotion of local excise taxes, community coalitions will also track the progress of legislative/local ordinance development. Community coalition reports will reflect whether legislation has been written and introduced as well as the level of debate around this legislation. Community coalitions will continue to conduct key stakeholder and public educational activities and will provide information to legislative committees when requested. The number of meetings attended, letters written by partners and submitted to the editor and legislators, and other activities will be recorded and reported in the community coalition reports. In addition, the news media tracking system will thoroughly capture the political debate and community involvement in the issue.

The above qualitative data will answer all of the intermediate qualitative evaluation questions and inform the quantitative analysis by contributing another factor from which to view the analysis.

Quantitative/Secondary Data Analyses. The YTS, ATS, and proposed longitudinal youth telephone survey will be used extensively to evaluate intermediate outcomes (refer to Section 4.1 on analysis methods). Specifically, the longitudinal youth telephone survey will begin to elucidate how exposure to specific campaign messages and activities relate to key program-targeted attitudes and beliefs about tobacco (research questions IT 2.4 through IT 2.10; IT 2.14–IT 2.15). Using this methodology, the effects of specific media ads or campaign activities can be explored.

Although limited in its applicability to campaign evaluation, the YTS will provide helpful comparative data on youth knowledge, attitudes, and beliefs about tobacco use and on current youth tobacco use behaviors. Data from the YTS allow for comparisons between states and over time and an exploration of changes in attitudes over time, which can be correlated with estimated or expected levels of exposure to TCP components. For instance, correlations between general tobacco use measures and beliefs about the pros and cons of smoking can be assessed. Openness to smoking, a key predictor of smoking initiation, could be regressed on multiple measures of tobacco-specific attitudes and beliefs to determine which attitudes most strongly influence openness to smoking. General attitudes about tobacco use could be compared with findings from other states to help determine the respective impact of New York's TCP.

The ATS, with variables added to measure campaign-specific issues, will allow for analyses of the relationship between campaign exposure and outcomes, such as attitudes about tobacco industry sponsorship or point-of-purchase advertising, support for CIA laws, or intentions to quit smoking.

Long-term Evaluation Questions

Long-term Qualitative Evaluation Questions

- LT 2.1 What role do the community grant activities play in achieving New York's goal of decreased social acceptability of tobacco use for individuals residing in the funded communities? What are the lessons learned in effectively making community-based change?

Long-term Quantitative Evaluation Questions

- LT 2.2 What contributions to reductions in teen smoking are made by countermarketing campaigns, over and above other TCP initiatives?
- LT 2.3 Does the synergy of the countermarketing campaigns combined with other program components create more robust effects than each component in isolation?
- LT 2.4 Do youth exposed to tobacco countermarketing report increased intentions to never smoke?
- LT 2.5 Has the percentage of young people who report seeing tobacco advertising at retail locations (in the past 30 days) decreased?
- LT 2.6 Do increases in exposure to campaign messages increase the proportion of adults who support CIA laws?
- LT 2.7 Has the number of retailers posting point-of-purchase tobacco advertising decreased?
- LT 2.8 Has the number of communities with ordinances restricting tobacco advertising near schools, parks, and playgrounds increased?
- LT 2.9 Has the number of communities with ordinances restricting point-of-purchase tobacco advertising in retail locations increased?

Evaluation Activities to Address Long-term Evaluation Questions. *Qualitative Methods/Studies.*

Research question LT 2.1 will result from the culmination of qualitative evaluation methods throughout the evaluation period. Input from numerous stakeholders and community members will shape our understanding of the role of community-based activities in influencing community thought and practices regarding tobacco use. Multiple methods are likely to guide this understanding, including interviews with stakeholders and community members, direct observations of community events, and activities conducted by the Community Partners to assess exposure to tobacco advertising and sponsorship in the community. These data will produce a broad “picture” of the TCP effects at the community level and can be compared/correlated with quantitative findings to help explain how and in what ways the comprehensive TCP has impacted tobacco use in New York.

Quantitative Methods/Secondary Data Analyses. In order to evaluate long-term outcomes, the multiple sources of quantitative data will be combined to begin to consider the comprehensive effects of the TCP. LT 2.2 through LT 2.4 will be assessed with a combination of data from the YTS, longitudinal youth survey, and news media tracking measures, to assess how exposure to countermarketing campaigns and activities have affected youth tobacco use. This can be accomplished by geocoding the news media tracking data to these surveys and performing multilevel models to test the association between news coverage and these outcomes. The YTS provides information on smoking initiation and openness to smoking, along with traditional measures of current tobacco use, which will be assessed to determine population rates. Similarly, the ATS will include items measuring support for local ordinances and the CIAA, as well as smoking and smoking cessation behavior. These outcomes will be considered in light of short-term and intermediate findings to increase understanding of the processes through which the TCP has ultimately led to change. The use of multiple data sources will allow evaluators to consider

the effects of specific components (controlling for exposure to other potential influences), while also considering the potential synergistic effects of particular program components, which combined produce larger effects than when considered in isolation.

LT 2.5 addresses youth's perceived exposure to tobacco advertising, as measured by items on the YTS and potentially on the longitudinal youth survey. A reduction in actual and perceived exposure to tobacco advertising is a key objective of the TCP, and changes in this exposure over time will be assessed. The longitudinal survey will uniquely allow for an investigation of perceived exposure to tobacco advertising among a cohort of youth over time.

Adult exposure to campaigns is anticipated by the TCP to eventually lead to increases in the proportion of adults who support CIA laws (LT 2.6) and ordinances restricting tobacco advertising, promotions, and sponsorships. The ATS will provide data on the number of adults who support these restrictions, and measures of reported campaign exposure (ATS) and potential campaign exposure (data from the media buy) will provide exposure data that will be correlated with levels of support for restrictions.

The ATS, YTS, and longitudinal youth survey are measures that assess individual attributes and change. Of additional interest are actual community-level changes that can be assessed via direct observations and document reviews. LT 2.7 through LT 2.9 refer to changes at the community/policy level. These data will be collected by the Community Partners in their monthly reports and through direct observations and will be verified with document review of publicly-available information on policy change. LT 2.7, which refers to the number of retailers posting point-of-purchase advertising, will specifically be assessed by Community Partners following an RTI-developed protocol for recording and measuring point-of-purchase advertising.

4.3.3 Goal 3: Promote Cessation

To achieve the overall goal of promoting cessation, the TCP, in its strategic plan, specified four objectives (described in previous section). The TCP plans to undertake a number of activities intended to meet these objectives and eventually achieve the overall goal. The TCP activities are mostly related to providing training and support (e.g., funding, materials, expertise) and facilitating the development and maintenance of an infrastructure for providing cessation services. As part of the development and maintenance of the cessation services infrastructure, the TCP will partner with other organizations (e.g., HCPOs, Quitline, Community Partners) to promote and/or implement and operate cessation services.

In the short-term, the evaluation should describe the activities undertaken to achieve the objectives and document that these activities were implemented and maintained at targeted or desired levels. The desired outcome (in a general sense) in the short-term is to achieve or maintain a targeted reach or exposure for the program (in this case, efforts related to the cessation goal) and increase or maintain awareness of program activities among potential participants. Thus, short-term evaluation efforts should also document levels of exposure to and awareness of program

activities. It is also important to track the levels of short-term indicators over time to document that activities are happening as planned and that exposure to and/or awareness of program efforts are being maintained at desired levels.

Given that several of the strategies used by the TCP in its efforts to promote cessation involve concepts that are not easily measured or quantified (e.g., extent of implementation, facilitation, coordination with partners), it is desirable to collect data directly from participants in the process. This suggests using qualitative evaluation strategies to enhance the description of the process of implementing and maintaining an infrastructure to promote cessation.

Changes in behavioral outcomes are not likely to occur immediately upon implementation of activities to promote cessation. It is hypothesized that prior to behavior change (such as cessation), there are likely to be observable changes in attitudes, intentions, and other intermediate-term outcomes related to the behavior change (e.g., a change in intentions to quit would precede an actual quit attempt). Therefore, it is important for the evaluation to measure and track changes in such intermediate outcomes. Ideally, the evaluation would be able to link program activities to changes in intermediate outcomes.

Ultimately, the TCP has undertaken its efforts to bring about behavior change. Therefore, the evaluation should track changes in the key behavioral outcomes. Strategies should also be outlined that allow for an assessment of the extent to which observed changes in behavioral outcomes are linked to program activities.

In the following section, detailed evaluation questions are presented organized by whether they are of primary interest in the short-, intermediate-, or long-term. We distinguish between questions that are likely to be addressed by qualitative evaluation strategies and those more likely to be addressed via secondary data analysis. Further, we indicate the objectives of the TCP strategic plan to which the evaluation questions apply.

Data to evaluate the cessation-related activities will be of three types: (1) qualitative data from a community-level study, (2) process or programmatic data (e.g., Quitline, reports from community groups/HCPO grantees/Medicaid office reports), and (3) survey data (e.g., physician survey, ATS, YTS, Quitline follow-up, BRFSS, CPS). Qualitative data will be largely used to assess aspects of implementation, coordination, and collaboration and capacity/infrastructure building at the community level. Process and programmatic data will be used mostly to address short-term evaluation questions related to documenting activities and measuring program reach/exposure. Survey data will be used to measure short-, intermediate-, and long-term outcomes.

Given the complexity of activities within this goal, we organize our quantitative evaluation questions and plan for addressing the questions by outcome and objective.

Short-term Evaluation Questions

Short-term Qualitative Evaluation Questions (apply across all objectives 3A–3E). The qualitative short-term evaluation questions are similar for each objective. These questions address issues related to community groups' efforts to promote local cessation resources as well as coordination and collaboration across multiple groups working to promote cessation at the local level (e.g., Quitline, HCPO and providers, cessation centers, insurers, and others).

- ST 3.1 Is there evidence of coordination/collaboration of TCP, New York State Smokers' Quitline, and regional cessation centers? In what ways are cessation centers coordinating with TCP, Quitline, and other organizations (e.g., HCPOs and insurers) to promote cessation among Medicaid-eligible smokers, among non-Medicaid-eligible low-income population, and to increase access to cessation counseling and services?
- ST 3.2 What are the barriers and facilitators of TCP's efforts to implement a grants program that increases the number of HCPOs that attempt to implement the Preventive Services Task Force clinical guidelines for cessation? What strategies were implemented to overcome barriers, and how successful were they?
- ST 3.3 What strategies and materials are used by the cessation centers to promote cessation services by providing mini-grants to local HCPOs, convincing HCPOs to refer to the Quitline, increasing the awareness/interest of local Medicaid providers in the Medicaid benefit, and approaching pharmacies and community organizations to promote use of the Medicaid benefit? For example, what programs/activities do the cessation centers use to provide HCPOs with training on cessation techniques?
- ST 3.4 What do cessation centers see as barriers to working effectively at the local level to achieve cessation objectives? What do they see as successful strategies?
- ST 3.5 What local and/or regional partners do cessation centers work with to achieve cessation objectives?
- ST 3.6 How are cessation centers organized? Is this organization structure a factor in achieving cessation objectives?
- ST 3.7 What are the barriers and facilitators of TCP's efforts to mobilize stakeholders around policy issues: health insurance plan change, development and implementation of more effective tobacco product warning labels, and a policy to insure that the Quitline telephone number is printed on the New York State cigarette excise tax stamp. What strategies were implemented to overcome barriers, and how successful were they?
- ST 3.8 What are facilitators and barriers for the New York State Smokers Quitline expansion of services?

Qualitative Evaluation Activities. We anticipate that the regional cessation centers will provide regular reports to the TCP, which will document quantitative aspects of their work, although it is possible that some qualitative responses might also be provided, that could address some of the proposed qualitative evaluation questions. Beyond this, for ST 3.1, 3.4, 3.5, and 3.6, we would propose semiannual telephone or in-person interviews with one to two key staff in each of the (8 to 10) cessation centers. Initial interview questions would be shared with the staff prior to the interview.

The TCP itself plays a major direct role in mobilizing stakeholders around cessation policy change issues (ST 3.7), as well as a direct role in coordinating a grants program to HCPOs (ST 3.2). To answer the qualitative questions surrounding those issues, we propose to interview the relevant TCP staff on a semiannual basis and to glean relevant material from TCP reports.

Similarly, we propose a semiannual schedule for interviewing key Quitline staff to answer questions ST 3.3 through ST 3.8.

Short-term Quantitative Evaluation Questions. A number of short-term questions can be addressed using programmatic or process data, essentially recording counts of activities that happened. These data can be used to address questions related to implementation (e.g., are activities being implemented as planned? and are target levels being reached and maintained?) and to create measures of program reach or (potential) exposure (e.g., how many physicians have been trained? or how many Medicaid recipients have been sent materials by the Quitline?).

Multiple sources of program/process data are also available, including Quitline (e.g., call volume, materials distributed, contacts with HCPO), TCP documentation, and grantee reporting. Using process data, the evaluation will document changes in program activities and reach/exposure (e.g., numbers trained, numbers served) over time as well as geographic variation. The latter is important to document and relate to population need and program targets.

In the short-term, program activities should result in increasing levels of reported exposure to and awareness of program activities. The intent of short-term evaluation is to document changes over time in the level of exposure/awareness for the various groups targeted by program activities. It is also useful to document geographic variation in exposure/awareness to understand issues related to the distribution of program activities and to relate that to population need or TCP targets.

Objective 3A (HCPO)

- ST 3.9 How successful are community cessation centers in efforts to identify (recruit for training) HCPOs? Are they meeting recruitment targets? By type of HCPO?
- ST 3.10 How many HCPs are being trained by the community cessation centers? Are providers satisfied with the training?
- ST 3.11 At baseline, are HCPOs supportive of offering cessation services?
- ST 3.12 At baseline, are HCPOs offering cessation services and trying to or already implementing cessation guidelines? At baseline, are HCPs offering cessation services and following cessation guidelines?
- ST 3.13 Are HCPOs knowledgeable about cessation services, products, and guidelines? Are HCPs knowledgeable about cessation services, products, guidelines?
- ST 3.14 At baseline, what are HCPOs doing to offer cessation services? Are systems in place to help providers? Are systems in place to facilitate providers in identifying smokers, offering information and referrals?
- ST 3.15 Is there evidence that HCPOs are communicating with smokers (and nonsmokers?) about health risks of smoking, cessation service options, etc.?

ST 3.16 Do HCPs perceive organizational support for offering cessation services? What organizational factors (e.g., type of HCPO) are associated with greater support for providers offering cessation services?

Evaluation Strategy. Several data sources are available to address the short-term evaluation questions related to objective 3A: (1) a survey of HCPO administrators, (2) a survey of providers, (3) monthly reporting by the community cessation centers, (4) Quitline process and follow-up survey data, and (5) ATS.

The survey of HCPO administrators will provide us with information on organizational support for promoting cessation within HCPOs. This will include data on systems in place for implementing and monitoring adherence to cessation guidelines as well as administrator knowledge and attitudes about the importance of promoting cessation. In the short-term, the objective of the evaluation is to document the baseline level of these organizational indicators and to track changes over time.

The survey of providers will allow us to establish baseline levels of provider knowledge and attitudes about tobacco and promoting cessation (and the guidelines), provider perception of organizational support for cessation promotion, and current provider practices related to promoting cessation.

Data from the monthly reports of the community cessation centers will be used to address several short-term (process) questions. These process data provide counts of the number of HCPOs identified for training and the number of HCPs trained. In the short-term, these descriptive process data are used to demonstrate progress over time.

The New York State Quitline provides two sources of data for evaluation: (1) process data from monthly system reporting, and (2) data from the follow-up surveys of callers to the Quitline. For the evaluation questions specific to HCPOs, the Quitline process data are most relevant. These data contain information on the number of HCPs or HCPOs that called the Quitline as well as the number of HCPO packets mailed to HCPs (by type of provider). We want to display descriptive statistics for these data and track changes over time as an indicator (monitor) of progress.

Finally, the ATS contains questions asking respondents about their interaction/communication with providers related to tobacco use and cessation. These data provide an important point of view—that of the patient. In the short-term, we want to establish the baseline level of these indicators of provider practice from the patient perspective.

Objectives 3B (Medicaid)

ST 3.17 Are community cessation centers identifying and training Medicaid providers to offer cessation services?

ST 3.18 How many pharmacists, providers, others are offering these types of services to the Medicaid population? What factors are associated with participation? What is the involvement of pharmacists, providers, and others in efforts to increase cessation services to this population?

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- ST 3.19 To what extent is coverage dispersed across the state and accessible to the Medicaid population (i.e., where are the providers in relation to the eligible population)?
 - ST 3.20 To what extent are Medicaid-eligible persons using the benefit (Medicaid coverage of cessation services/products)?
 - ST 3.21 What is the baseline level of use of cessation services among the Medicaid-eligible population? What is the baseline level of awareness of the New York State Quitline and media ads promoting cessation?

Evaluation Strategy. Several data sources are available to address the short-term evaluation questions related to objective 3B: (1) reporting by cessation centers, (2) a survey of providers, (3) Office of Medicaid data/reports, (4) New York State Quitline process and follow-up survey data, and (5) ATS.

Reports by cessation centers will document outreach and provision of materials/activities directed at local Medicaid providers. Cessation centers will also report distribution of materials to local pharmacists and to numerous community organizations, which are then expected to distribute the materials to low-income clients. We expect that cessation centers will monitor how well these local partner organizations are fulfilling this objective and obstacles met in doing so and that we would also obtain this information through the cessation centers' reports.

Cessation centers will interact directly with HCPs to persuade them of the benefit of offering cessation services to Medicaid beneficiaries together with information about the Medicaid benefit for nicotine replacement therapy (NRT). We therefore expect that our provider survey will document the degree to which providers are carrying out these activities and that we would be able to document the geographical dispersion of providers who are doing so.

The Office of Medicaid regularly reports (since 2000) the number of Medicaid recipients who access pharmacotherapy for smoking cessation through the Medicaid program. We assume that these data are also available by geographic area.

The New York State Quitline provides two sources of data for evaluation: (1) process data from monthly system reporting, and (2) data from the follow-up surveys of callers to the Quitline. The role of the Quitline relative to this objective is to provide information on the Medicaid NRT benefit to all Medicaid providers and recipients who contact the Quitline. For the evaluation questions specific to this function, both types of data are relevant. Process data will contain data on Medicaid beneficiaries who are using, or have used, NRT in their effort to quit. We assume that the Quitline interviews will be revised to ask whether the Medicaid benefit was actually used in obtaining NRT. The Quitline follow-up surveys document whether the respondent reports actually quitting and whether medications were used.

Finally, the ATS asks respondents about their cessation-related behaviors, whether NRT was used, whether health insurance covered all or part of the cost of NRT, whether the respondents received free nicotine patches from any community program, whether any other cessation services were used, and the respondent's health insurance source. To the extent that sample size is adequate,

the ATS could thus help answer questions related to these short-term measures. As noted previously, RPCI has several ongoing studies specific to the Medicaid population, and one possibility would be to expand on these studies, if the sample sizes accrued in the ATS and Quitline are inadequate.

Objective 3C (insurers/employers—coverage of cessation services and products)

- ST 3.22 How many insurers currently offer coverage for cessation services? What types of coverage are offered by those plans offering any coverage?
- ST 3.23 How many employers choose to offer coverage for cessation?
- ST 3.24 Does the employer offer smoking cessation services directly (e.g., worksite services separate from insurance coverage)?
- ST 3.25 Do insurers/employers see a benefit to offering cessation services? Are they aware of potential short-term benefits of cessation (and thus of offering coverage)?
- ST 3.26 What are the barriers to offering coverage from the perspective of the insurers? What are the barriers to offering coverage from the perspective of the employers?

Evaluation Strategy. To address the short-term evaluation questions related to objective 3C, we will use the following data sources: (1) TCP reports on various strategies implemented to persuade insurers and employers of the benefits of health plans that provide cessation services/products, (2) data from the New York Insurance Commissioner's office, (3) data from the New York Health Plan Association (NYHPA), (4) employer survey, (5) ATS, (6) BRFSS, and (7) CPS.

The TCP's activities include work—both directly and with allied stakeholders—to persuade insurers and employers of the benefits of extending coverage of cessation benefits. We anticipate that TCP reports will document the implementation of these strategies.

We anticipate that the Insurance Commissioner's office may have data on the number of insurers currently offering plans that include coverage of cessation services and the types of coverage. If this is not the case (or in addition), we hope to work with the NYHPA to determine these data for NYHPA members, which includes 19 health maintenance organizations (HMOs) and 8 prepaid health service plans serving more than 6 million New Yorkers.

The BRFSS and ATS will indirectly offer some data on these questions, since both ask the respondent's insurer, whether the respondent has attempted or is attempting to quit, and whether insurance covered any cessation products. These would allow documentation of some insurers providing such plans but would not include a complete survey of insurers. The CPS-TUS also includes questions on quit attempts and medical advice to quit.

The employer survey will provide data on whether employers have chosen plans, when available, that offer coverage of cessation products and services, as well as whether smoking cessation services are offered directly, and attitudinal data, such as whether employers see a benefit and what barriers exist. Analysis of data from the current HeartCheck survey conducted by the NYSDOH Healthy Heart program may supplement the employer survey.

Objectives 3D (non-Medicaid low-income)

- ST 3.27 What is the baseline level of use of cessation services among the non-Medicaid eligible low-income population? What is the baseline level of awareness of the New York State Quitline and media ads promoting cessation?

Evaluation Strategy. Limited data are available to answer short-term evaluation questions for this subgroup. The ATS collects information on income and short-term measures of interest and thus might be useful for answering short-term evaluation questions for this group. However, the small sample size might limit the ATS' usefulness.

The ATS will be used to establish baseline levels of such measures as use of cessation services, awareness of the Quitline and media ads, and interaction/communication with providers. In the short-term, the objective of the evaluation is to present descriptive statistics and to track changes over time.

Objective 3E (general population)

- ST 3.28 What is the baseline level of use of cessation services among the general smoking population? What is the baseline level of awareness of the New York State Quitline and media ads promoting cessation?
- ST 3.29 To what extent were Quitline callers satisfied with the services received in general? To what extent were different targeted audiences satisfied with the services received?
- ST 3.30 To what extent are referrals being made to local cessation programs? Which smokers are more likely to receive referrals?
- ST 3.31 Is the media effort (statewide and local efforts) increasing calls to the Quitline? What media efforts are most successful at increasing calls to the Quitline?
- ST 3.32 Are smokers reporting greater levels of awareness of advertisements about where to get cessation help?
- ST 3.33 Are youth aware of cessation services available to them?

Evaluation Strategy. To address short-term evaluation questions for this objective, several data sets can be used: (1) Quitline process and follow-up, (2) ATS, and (3) YTS. The New York State Quitline is a prominent way to increase access to cessation counseling and services. Analysis of Quitline process data can be used to address many questions related to the extent of program reach (e.g., tracking the number of callers, geographic distribution of callers, materials distributed). In addition, Quitline process and follow-up data can be used to answer questions related to performance and satisfaction of the New York State Quitline service. Quitline process data can also be used to examine the association between statewide and local media (and other local promotions) and call volume (RPCI has already done such studies).

The ATS also has items that allow us to estimate baseline levels of several measures of individual awareness of program-related activities (e.g., awareness of media and the New York State Quitline) and self-reports of utilization of cessation services and to track changes in these indicators over time. In the short-term, we want to document that these indicators are increasing. The ATS can

also be used to display the geographic variation in these measures at baseline and document changes over time.

Short-term questions related to increasing youth access to cessation counseling and services can be addressed using Quitline data and the YTS. Items measuring youth awareness of program-related activities (e.g., awareness of Quitline, media, community events/programs) are available although limited in YTS. These items can be supplemented with the proposed youth telephone survey. Baseline levels of these measures will be established and tracked over time to document changes.

Intermediate-term Evaluation Questions

In the intermediate-term, the TCP hopes to see changes in knowledge, attitudes, intentions, and practices related to tobacco and cessation behaviors. The specific knowledge areas, attitudes, and intentions will differ somewhat depending on the focus of the objective (e.g., HCPOs, Medicaid-eligible population).

The evaluation strategy is to track these intermediate outcomes over time and to examine geographic variation. The evaluation will also examine the association between variation in program exposure/awareness and these intermediate outcomes. Trend analysis and models that incorporate both variation over time and geographic region will be used to answer these types of questions. To properly assess the effect of the program, it is necessary to control for other possible influences (confounders). Statistical models that examine the relationship between outcomes and program activities will control for excise tax changes and other policy variables that might confound the relationship between cessation-specific program activities and outcomes. It would also be helpful to address the question of program effectiveness to compare trends in New York with other states.

Objective 3A

- IT 3.1 Did the program activities result in an increased willingness and ability of providers to engage current smokers (compared to baseline levels)?
- IT 3.2 Are more providers referring patients to cessation service options (Quitline, cessation services, NRT, other) than at baseline?
- IT 3.3 Are guidelines being implemented? Are HCPOs adhering to guidelines?
- IT 3.4 What factors are associated with implementation and adherence to guidelines (e.g., is there a difference by type of HCPO [or HCP])? Is it related to knowledge about tobacco, cessation, and/or attitudes about tobacco of providers?

Evaluation Strategy. The same data used to address short-term questions for objective 3A can also be used to address intermediate-term evaluation questions for this objective. It is assumed that follow-ups of the survey of HCPO administrators and providers will be conducted.

In the short-term, it is important to document the organizational efforts related to implementation and adherence to guidelines since the TCP's activities will be focused at this level. After some

time, it is expected that organizational systems will have been put in place (we will descriptively document this) and that this will result in changes in provider practices. We should observe these changes in provider self-reports of practices (provider follow-up survey) and patient reports of interactions/communications with providers (ATS).

In the intermediate phase of the evaluation, the intent is to document that HCPOs are implementing and adhering to cessation guidelines. This will be addressed from the perspective of the organization, represented by the administrator (follow-up survey of HCPO administrator), the provider (follow-up survey of providers), and the patient (ATS). Using data from both the follow-up survey of HCPO administrators and the follow-up survey of providers, we will examine factors associated with implementation and adherence to guidelines. We will also continue to track process data to document ongoing progress and maintenance of earlier progress in reaching and training providers.

Objectives 3B

- IT 3.5 Is utilization of the benefit and awareness of cessation products and services increasing over baseline levels among the Medicaid population?
- IT 3.6 Has utilization of the New York State Quitline and other cessation resources increased over time among Medicaid-eligible smokers?
- IT 3.7 Is there an association between increased demand for smoking cessation products and services and program activities for Medicaid-eligible smokers?
- IT 3.8 How are Medicaid expenditures for cessation-related covered products changing over time?
- IT 3.9 Are intentions to quit increasing among the Medicaid-eligible population?

Evaluation Strategy. The same data sources used to address short-term questions for objective 3B can also be used to address intermediate-term evaluation questions for this objective. The use of the Medicaid NRT benefit has been, and will be, documented by the Office of Medicaid, whose prior studies provide the baseline. The ATS asks whether the respondent has used a free telephone Quitline, and thus both ATS and Quitline data will help answer questions related to use of a Quitline (and other cessation resources). The ATS also tracks intention to quit, and to the extent that the sample size is large enough, ATS data can be used to answer this question.

Objective 3C

- IT 3.10 Over time, are more New Yorkers reporting insurance coverage of NRT (cessation services)?
- IT 3.11 Are more employers offering a benefit that includes cessation products/services?

Evaluation Strategy. The intermediate-term questions for this objective simply seek to document the trend of insurance coverage of NRT and the provision of such coverage by employers, over time. Thus, the same sources will be used: employer survey, ATS, and BRFSS.

Objective 3D

- IT 3.12 Is awareness and utilization of cessation products and services increasing over baseline levels among the non-Medicaid-eligible low-income population?
- IT 3.13 Has utilization of the New York State Quitline and other cessation resources increased over time among non-Medicaid-eligible low-income smokers?
- IT 3.14 Is there an association between increased demand for smoking cessation products and services and program activities for this subgroup?
- IT 3.15 Are intentions to quit increasing among the non-Medicaid-eligible low-income population? Is there an association between increases in intentions to quit and program activities for this subgroup?

Evaluation Strategy. To answer intermediate-term evaluation questions for this subgroup, we are faced with a similar situation of limited data specific to this subpopulation. Once again, the ATS is likely to be the most useful data source. The CPS and BRFSS also offer additional data on quit attempts, although for this subgroup the sample size may be limited.

In addition to continuing to track the short-term indicators from the ATS (e.g., cessation services used, awareness of the Quitline and media ads, interaction/communication with providers), we will also begin to examine intentions to quit and quit attempts.

At this stage of the evaluation, we can also begin to examine associations between changes in self-reported utilization of cessation products (NRT) and services (counseling) and behavior (quit intentions and quit attempts) and self-reported awareness of Quitline, media messages, and other indirect measures of program activities (e.g., provider interaction/communication). Again, the ATS will be used for this purpose to the extent that sample size allows for this subgroup.

Objective 3E

- IT 3.16 Is awareness and utilization of cessation products and services increasing over baseline levels among the general population?
- IT 3.17 Has utilization of the New York State Quitline and other cessation resources increased over time among smokers in general?
- IT 3.18 Is there an association between increased demand for smoking cessation products and services and program activities for the general population?
- IT 3.19 Are intentions to quit increasing among all smokers? Is there an association between increases in intentions to quit and program activities for this population?
- IT 3.20 Are more workplaces offering support for cessation?
- IT 3.21 Are intentions to quit increasing among youth?

Evaluation Strategy. One of the purposes of evaluation in the intermediate-term is to document changes over time in the indicators that we began tracking at baseline (e.g., awareness and utilization of cessation products and services, including the New York State Quitline). The idea is to demonstrate whether these indicators are moving in the expected direction (or maintaining at desired levels). Data from the New York State Quitline and the ATS are the source of these indicators.

The ATS can also be used to describe the trend in several other indicators of increasing access to cessation resources (e.g., workplace support for cessation [the CPS also asks about this] and insurance coverage for cessation products and services). (This question also arises in the context of objective 3C.)

Intention to quit is also an intermediate outcome that we might expect to see changing as a result of program activities. To track this outcome, we will use the ATS for adults and YTS for youth.

At this stage of the evaluation, we also begin to address whether changes in outcomes are associated with awareness of, or exposure to, program activities. One approach that provides information relevant to these questions is to examine the association between changes in outcomes and self-reported awareness of New York State Quitline (and other indirect measures of awareness of/ exposure to) program activities. In addition, we propose to merge program data (levels of activities for geographic regions) to the ATS and estimate multilevel models to address these types of questions.

Long-term Evaluation Questions

In the long-term, the program expects to change behaviors related to cessation. That is, program activities should have resulted in a change in provider practices regarding the offering of cessation services, greater utilization of cessation services among smokers, and other outcomes. The evaluation strategy is to track these outcomes over time and to examine geographic variation. The evaluation will also examine the association between variation in program exposure/awareness and these outcomes. Trend analysis and models that incorporate both variation over time and geographic region will be used to answer these types of questions. To properly assess the effect of the program, it is necessary to control for other possible influences (confounders). Statistical models that examine the relationship between outcomes and program activities will control for excise tax changes and other policy variables that might confound the relationship between cessation-specific program activities and outcomes. It would also be helpful to address the question of program effectiveness to compare trends in New York with other states.

Objective 3A

- LT 3.1 Is there an association between increases in the numbers of HCPOs implementing and adhering to guidelines and providers reporting they follow and adhere to guidelines? Is there an association between increases in numbers of HCPOs implementing and adhering to guidelines, providers reporting they follow guidelines, and self-reports of smokers reporting HCPs communicating to them about tobacco/cessation and changes in smoker intentions and behaviors?

Evaluation Strategy. Data to address long-term questions related to objective 3A will come from continued follow-up of providers, the ATS, and process data (from cessation centers and New York State Quitline). The focus at this point of the evaluation is to document that the guidelines have been implemented and that providers are following them. This will be assessed from the

perspective of providers (provider follow-up survey) and patients (ATS). In addition, we continue to track the trends in the process data to assess ongoing/maintained progress in reaching providers.

Finally, at this stage of the evaluation, we will attempt to examine the association between program activities and outcomes. To address these questions, we will merge together patient (ATS), provider, and program data (cessation center reports) and use a multilevel modeling strategy. A similar model can be estimated with Quitline follow-up data merged to program data by geographic location.

Objective 3B

- LT 3.2 Is utilization of the benefit and awareness of cessation products and services increasing or being maintained at levels (desired or targeted) over baseline levels among the Medicaid population? Are these increases in utilization related to program activities?
- LT 3.3 Are quit attempts increasing over time for Medicaid-eligible smokers? Is there an association between increases over time in quit attempts and program activities for these population groups?
- LT 3.4 Is there an increase in successful cessation (increased numbers in maintenance stage of cessation) among Medicaid-eligible smokers? Is there an association between increases in successful cessation rates and program activities for these population groups?
- LT 3.5 How are Medicaid expenditures for smoking-related illnesses changing over time?

Evaluation Strategy. To address long-term questions related to objective 3B, the data will come from the Quitline, the ATS, the Office of Medicaid Reports, and potentially from the BRFSS and the CPS, which contain information similar to that collected in the ATS (e.g., cessation attempts, use of NRT, whether insurance covered cessation products).

At this stage of the evaluation, we want to examine the association between program activities and outcomes. Activity data would be provided (as noted above) through cessation center reports and provider surveys. Follow-up data from the New York State Quitline would be helpful to address these questions, but it is not known if enough Medicaid-eligible individuals would be in this sample. A similar concern limits the possibilities for using individual data from the ATS and examining an association between outcomes and self-reports of awareness of program-related activities (e.g., Quitline and media). Likewise, the use of multilevel models is not likely to be feasible in this case (too few in any given geographic area).

Objective 3C

- LT 3.6 Has there been an increase over time in the number of New Yorkers reporting insurance coverage for cessation products/services?
- LT 3.7 Has there been an increase over time in the number of employers choosing to offer this benefit to employees?

Evaluation Strategy. In the long-term, we want to continue to document the change over time in the levels of those indicators we began tracking at baseline. We want to verify that these

indicators have changed in the desired direction and have been maintained at desired levels. For this purpose, the ATS will be used.

Objective 3D

- LT 3.8 Is awareness and utilization of cessation products and services increasing over baseline levels among the non-Medicaid-eligible low-income population? Are these increases in utilization related to program activities?
- LT 3.9 Are quit attempts increasing over time for non-Medicaid-eligible low-income smokers? Is there an association between increases over time in quit attempts and program activities for these population groups?
- LT 3.10 Is there an increase in successful cessation (increased numbers in maintenance stage of cessation) among non-Medicaid-eligible low-income smokers? Is there an association between increases in successful cessation rates and program activities for this population group?

Evaluation Strategy. To address long-term evaluation questions for this group, we will use the ATS, CPS, and BRFSS. Once again, a small sample size is likely that will limit conclusions for this subgroup.

In the long-term, we want to continue to document the change over time in the levels of those indicators we began tracking at baseline. We want to verify that these indicators have changed in the desired direction and have been maintained at desired levels. For this purpose, the ATS will be used.

At this stage of the evaluation, we also want to relate changes in outcomes, such as intentions to quit and quit attempts, to self-reported awareness of Quitline, media messages, and other indirect measures of program activities (e.g., provider interaction/communication).

Objective 3E

- LT 3.11 Is awareness and utilization of cessation products and services increasing over baseline levels among the general population? Are these increases in awareness and utilization related to program activities?
- LT 3.12 Is utilization of cessation services, quit attempts, and maintained quits increasing for New York youth? Are these increases associated with program activities?
- LT 3.13 Are quit attempts increasing over time among all smokers? Is there an association between increases over time in quit attempts and program activities for these population groups?
- LT 3.14 Is there an increase in successful cessation (increased numbers in maintenance stage of cessation) among all smokers? Is there an association between increases in successful cessation rates and program activities for this population group?

Evaluation Strategy. At this stage of the evaluation, we want to continue to observe the trend in indicators that we started observing at baseline to address whether the program has achieved targeted levels of awareness/exposure/reach and that these levels have been maintained. It is also possible that the trend in these outcomes would increase at an increasing rate since the start of the program. For these types of questions, the ATS and YTS data are most useful.

In the long-term, other outcomes, such as quit attempts and maintained quit attempts, might be expected to be changing in response to the program; thus, we examine the trend in these outcomes. One possibility is that over time (since the program) these outcomes are changing at an increasing rate. We would like to be able to compare these trends in New York with other states. These types of questions and analyses will be addressed using New York State Quitline follow-up, ATS, YTS, CPS, and BRFSS data. Another strategy for assessing the association between program activities and long-term outcomes is to merge program data for geographic regions to individual-level data (e.g., ATS, YTS) and to estimate multilevel models. This strategy employs geographic variation in outcomes and program reach. Options can be explored that use both variation over time and across geographic region to assess the relationship between program activities and outcomes.

Cross-cutting Evaluation Questions

Short-term Cross-cutting Evaluation Questions

- ST 3.CC.1 Are increases in state (and local) excise taxes associated with an increase in calls to the Quitline?
- ST 3.CC.2 Are increases in state (and local) excise taxes associated with an increase in reported use of NRT (and other cessation products) and cessation counseling services?
- ST 3.CC.3 Is the passage of the CIAA associated with an increase in calls to the Quitline?
- ST 3.CC.4 Is the passage of the CIAA associated with an increase in reported use of NRT (and other cessation products) and cessation counseling services?

Intermediate Cross-cutting Evaluation Questions

- IT 3.CC.1 Do increases in calls to the Quitline, increases in the use of cessation products and services, associated with excise tax increases and/or the CIAA and/or other policy changes, persist over time (or were they only temporary increases)?
- IT 3.CC.2 Is there an association between excise tax increases and/or the CIAA and/or other policy changes and reported intentions to quit and quit attempts?

Long-term Cross-cutting Evaluation Questions

- LT 3.CC.1 Does the association between excise tax increases and/or the CIAA and/or other policy changes and reported intentions to quit and quit attempts persist over time?
- LT 3.CC.2 Is there an association between excise tax increases and/or the CIAA and/or other policy changes and maintained (successful) cessation?

Evaluation Strategies for Cross-cutting Evaluation Questions. To address the cross-cutting evaluation questions related to cessation outcomes, we can assess each outcome separately using trend analysis or we can use multivariate trend analysis (treat the outcomes as a system of equations). In simple terms, we want to observe the trend before and after the introduction of the policy change. The ATS would be the best data set to use for this analysis in terms of the breadth of the outcomes measured, but it is limited in the ability to observe the pre-program trend. The

BRFSS and CPS, although limited in measurement of outcomes, have some cessation outcomes and allow for observation of a longer pre-program trend.

4.3.4 Goal 4: Prevent Initiation of Smoking among Youth and Young Adults

Goal 4 of the New York State TCP is to prevent the initiation of tobacco use among youth and young adults. To achieve this goal, four separate objectives have been identified, which focus on raising the price of cigarettes through statewide and local cigarette tax increases and stricter enforcement of laws that prevent sales of tobacco products to youth. Given the potential influence on youth smoking of activities from other programmatic goals and from environmental influences, we will address these issues in our evaluation. When implementing the evaluation, it is important to take note of the challenges to identifying program impacts.

The first challenge is that there are limited opportunities to create control groups or areas to provide a comparison (or counterfactual) to those groups and areas that are receiving the interventions. For example, every registered tobacco retailer will be inspected. Therefore, we cannot demonstrate that inspections lead to higher compliance rates by comparing inspected retailers to uninspected retailers. To get around this limitation, additional data are required, such as funding allocated to tobacco enforcement, that can provide information on the relative level of effort put toward inspections by local enforcement agencies. We can then use modeling techniques that exploit the variation in funding levels to detect an effect on compliance rates. Inferences based on this type of analysis do not have the strong causal implications that inferences based on true experimental designs do. However, by invoking theory and careful modeling, a strong association between inspections and rates of compliance can be established.

This is just one example, meant to highlight the fact that the TCP is not being implemented as an experiment but as a set of interventions that vary in scope and intensity of delivery. This fact will determine our analysis strategy, including the type and frequency of data collection we propose and the analytic techniques we apply.

The data requirements for nonexperimental analysis designs are great because of the need to control for confounding factors in a modeling framework, whereas experimental designs control for confounding factors explicitly through randomization and replication. Therefore, in many of the analyses proposed below, we make use of many different types of data that can be expected to vary by individual, such as age, sex, race/ethnicity, education, and income level; and by geography, such as level of program funding, activities conducted by Community Partners (these are measures of program activity), unemployment rates, and rural versus urban. Because the data we are working with are measured at different levels (e.g., individual, local, state), we make heavy use of multilevel modeling techniques. Models of this type nest individuals within their local and state communities to better control for large-scale, environmental impacts on individual behaviors.

The evaluation questions below are grouped by short-term, intermediate, and long-term to correlate with the measurements previously discussed. It is important to look at the short-term and

intermediate measures as they capture progress toward the ultimate goal of preventing youth and young adults from initiating tobacco use. Given the challenges to the evaluation, it is important to demonstrate the progress of program impact from changes in short and intermediate outcomes to changes in youth and young adult smoking rates.

Short-term Evaluation Questions

Short-term evaluation questions are focused on the process of implementing program activities toward achieving each of the four objectives and on tracking the near-term effects of those activities on smoking-related outcomes. Short-term process outcomes are intended to assess if Community Partners are carrying out planned educational messages and if local health departments are working to increase enforcement of ATUPA. They include raising awareness and support for increased excise taxes at the state and local levels and increasing the rate of compliance among retailers. Other short-term outcomes include measuring the effect of increased taxes on prices, sales, and tax evasion.

Short-term Qualitative Evaluation Questions

- ST 4.1 In what ways have Community Partners engaged retailers, policy makers, and stakeholders in raising awareness and support for an increase in local excise taxes?
- ST 4.2 How have Community Partners assessed local retailers for compliance with self-service display ban and posting of Quitline phone number near all tobacco displays and regulatory signs?

Evaluation Activities to Address Short-term Evaluation Questions. To assess ST 4.1, we will use the community coalition monthly reports to address how community coalitions are engaging partners to raise awareness of excise taxes and the problem of youth tobacco use. The community coalition monthly reports will detail the types of activities engaged in, such as educational meetings, literature distribution, or other means of engaging retailers, legislators, and key community leaders. Information gathered regarding the methods used to raise awareness will be detailed and charted over time. The level of activity will also be quantified within each region and used in the analysis of related quantitative data.

ST 4.2 will also be addressed using information provided by Community Partners in monthly progress reports. Of interest will be those reports provided by Community Partners that conduct regular assessments of retailer compliance with the self-service display ban and posting of the Quitline number near tobacco displays. The community coalition monthly reports will detail the process used to assess local retailers for compliance as well as the results of the assessment. We are interested in learning how the community has mobilized and approached conducting the retail environment assessment as well as how often they plan on collecting these data. In addition, RTI will conduct checks of the retail environment assessment at sites selected for the case study (see Section 3, recommendation 8 for further details).

Short-term Quantitative Evaluation Questions

- ST 4.3 How has the level of programmatic activities aimed at raising awareness and support for an increase in local excise taxes changed over time? What factors are associated with these changes?
- ST 4.4 How has the prevalence of local retailers' compliance with self-service display ban changed over time? What factors are associated with these changes?
- ST 4.5 What is the level of support for increasing the level of excise taxes at baseline?
- ST 4.6 To what extent have Community Partners worked with the media contractor to develop a media campaign raising public support for local cigarette excise taxes?
- ST 4.7 Has there been an increase in the number of jurisdictions with 5 percent or less illegal sales rates to minors?
- ST 4.8 Has there been a reduction in the statewide retailer noncompliance rate?

Evaluation Activities to Address Short-term Quantitative Evaluation Questions. Using the Community Partner monthly reports, we can assess how the level of programmatic activities aimed at raising awareness and support for an increase in local excise taxes has changed over time (ST 4.3). We will examine overall trends over time and explore factors that may be correlated with the level and change in programmatic activities. These analyses will help us understand potential downstream impacts.

To address ST 4.4, we will use results of the Community Partners' retail environment assessment to track how many retailers are compliant and what proportion of retailers have been assessed by the Community Partners. We will tabulate these count data and chart changes over time, with the expectation that Community Partners will increase the proportion of retailers visited and that the rate of compliance among retailers will also increase. We can then examine regional differences and other factors associated with these changes (e.g., coalition characteristics).

To address ST 4.5, we will modify the ATS to include questions regarding awareness and support for an increase in cigarette taxes. More questions could also be added that ask about the reasons why people are for or against such tax increases. Using these individual-level data, we will determine the proportion of respondents who are aware of initiatives to increase the cigarette tax and the proportion who are for or against such initiatives. We will also conduct regression analyses to determine the correlates of awareness and support for cigarette tax increases in New York and to measure the extent that local and statewide tobacco control program efforts (such as Community Partner activities, media, news coverage, and enforcement) are correlated with changing levels of support. While this may be most relevant for opinion leaders and legislators, we currently do not have a method for assessing their level of support for excise tax increases.

ST 4.6 will again rely on data gathered from community coalition monthly reports and special reports (specifically, number of meetings held and products developed with the media contractor), as well as regular progress reports from the media contractor to the New York TCP. We will track the number of meetings held and the number and types of products developed (e.g., number of

billboards, number of radio messages) and chart changes over time. Comparison to a suitable baseline number or expected frequency will be used to gauge progress.

ST 4.7 and ST 4.8 can be addressed using data from the Bureau of Community Sanitation and Food Protection (CSFP), a subdivision of the CEH. CSFP is required by law to visit each tobacco retailer once a year to conduct a compliance check. We assume that compliance checks cover 100 percent of tobacco retailers in a given year, with each retailer being visited at least once. CSFP publishes this information annually and other data collected from various New York state agencies and local health departments, including

- number of registered tobacco retailers, vendors, and vending machines;
- number of compliance checks conducted by state and local enforcement officers, including number of checks made with assistance of minors attempting to purchase tobacco;
- number of enforcement actions against retailers in violation of the code; and
- funding disbursements to county health departments for the conduct of compliance checks.

CSFP publishes the number of registered tobacco retailers by county and the number of retailers that are fined or penalized for selling tobacco products to underage youth. From this information, the county-specific and statewide rate of noncompliance can be calculated by dividing the number of fined retailers by the total number of registered retailers. We will prepare a report that explores the variation in compliance rates across counties (over time if the historical data are available). We will also attempt to correlate compliance rates with county-level socioeconomic variables.

We will calculate the noncompliance rate for each county using historical data. We will plot the county-specific noncompliance rate over time to visually identify counties with consistently high and low rates of noncompliance and to see the general trend over time. We will tabulate the number (and list the names) of counties with a 5 percent or less rate of noncompliance in each year. As new data become available, we will update the graphs and tables to measure progress toward increasing the number of counties with a 5 percent or less noncompliance rate. Similarly, the statewide noncompliance rate will be calculated and plotted with respect to time.

Calculating the rate of noncompliance in the manner suggested above (by dividing the number of fined retailers by the total number of retailers) makes it easy for counties with lax enforcement efforts to appear to have high rates of compliance simply by writing proportionately fewer citations. An alternate way is needed to measure the level of enforcement at the county level. One potential way to account for this is to measure the resources devoted by the county to enforcement activity to estimate a “corrected” compliance rate. One such measure, published by the CSFP, is tobacco program enforcement funding allocated to counties and district offices. However, funding is not an ideal instrument because other factors come into play, such as the age of the youth buyer.

ST 4.1 through ST 4.4 and ST 4.6 rely on data from Community Partners. We can immediately begin to review existing reports held by the NYSDOH to determine their usefulness in addressing these questions. However, more complete analyses will have to wait until the expanded Community Partner monitoring system is put into place. ST 4.5 can be addressed once this question is included in the ATS.

Work on ST 4.7 and ST 4.8 can begin immediately using existing reports and data from the NYSDOH and CSFP.

Intermediate-term Evaluation Questions

Intermediate-term process oriented questions are intended to assess the continued progress of the TCP toward achieving the objectives of Goal 4.

Qualitative Evaluation Questions

- IT 4.1 In what ways have the communities demonstrated their support for an increase in local cigarette excise tax in order to reduce smoking prevalence?
- IT 4.2 How have Community Partners engaged key stakeholders through various forums and other mechanisms about the beneficial impacts of increasing local cigarette excise taxes?

Evaluation Activities to Address Intermediate-term Qualitative Evaluation Questions. To assess the extent to which local communities have demonstrated their support for an increase in local cigarette taxes, we recommend structured interviews with key stakeholders to gain knowledge of awareness of, support for, barriers to, and successes in raising local excise taxes. Conducting structured interviews is part of the broader qualitative case study framework detailed in Section 3, recommendation 5. Interviews with key stakeholders and legislators will seek to accomplish three primary goals: (1) to assess the level of awareness regarding local tobacco use and taxation issues, (2) to determine the level of support for an increase in local cigarette taxes to reduce smoking prevalence among youth and young adults, and (3) to discuss the potential for change within their community. These measures collectively illustrate the transition between the short-term knowledge change from the education and media campaigns to a shift in attitudes among community members.

Structured interviews with key stakeholders and legislators will be conducted by RTI at sites selected as part of the case study as detailed in the qualitative case study framework (Section 3, recommendation 5). As discussed above, structured interviews provide an opportunity to assess barriers encountered in local efforts to increase excise taxes and, conversely, enable a discussion of what methods were successful. This level of detail on the process of passing local excise taxes provides valuable examples for other jurisdictions to learn from as they reform their cigarette tax laws.

IT 4.2 is a continuation of ST 4.1, although in the intermediate term this evaluation question focuses on community coalition activities specifically related to engaging partners to raise

awareness of excise taxes and the problem of youth tobacco use. The community coalition monthly reports will detail the types of activities engaged in, such as educational meetings, literature distribution, or other means of engaging retailers, legislators, and key community leaders. Furthermore, in the intermediate term, community coalition reports will detail their position and level of activity around any proposed legislation to increase excise taxes. Information gathered regarding the methods used to raise awareness will be detailed and charted over time. The level of activity will also be quantified within each jurisdiction and used in the analysis of related quantitative data.

Intermediate-term Quantitative Evaluation Questions

- IT 4.3 How has the level of support for increasing the level of excise taxes changed since baseline?
- IT 4.4 Have program activities resulted in an increase in the number of jurisdictions that levy taxes? Have program activities resulted in an increase in the level of cigarette excise taxes?
- IT 4.5 Have program activities resulted in a further increase in the number of jurisdictions with 5 percent or less illegal sales rates to minors?
- IT 4.6 Have program activities resulted in a further reduction in the statewide retailer noncompliance rate?
- IT 4.7 Has there been an increase in the number of youth smokers who are asked to show proof of age when attempting to purchase cigarettes as a result of program activities?
- IT 4.8 Has there been an increase in the number of youth smokers who are refused cigarettes (by a retailer) because of their age as a result of program activities?
- IT 4.9 Has there been a decrease in the number of youth who report buying cigarettes from stores as a result of program activities?

Evaluation Activities to Address Intermediate-term Quantitative Evaluation Questions. By examining trends in the quarterly ATS, we can assess to what extent public support for increasing the excise tax is increasing (IT 4.3). In addition, by merging county-level data on Community Partner activities, media market measures of paid media, and news media coverage to the ATS, we can perform multilevel regression models to assess to what extent these and other factors (e.g., SES, region) influence the level of support.

IT 4.4 is intended to assess progress toward increasing the number and level of local cigarette excise taxes. If there are changes in local taxes, we can examine the correlation between self-reported support for increased taxes in the ATS and the passage of local taxes. It may also be instructive to examine the news coverage closely in communities that raised their taxes to see if there was a disproportionate amount of discussion in news media on taxes. The number of localities that implement or increase the cigarette tax will be documented. IT 4.5 and IT 4.6 are continuations of ST 4.7 and ST 4.8 and will be addressed using similar data and methods. In particular, we are interested in assessing if program activities are correlated with increasing cigarette taxes and improvement in rates of compliance with youth access laws in New York. To estimate the effect of program activities on these outcomes, regression models can be estimated

that make use of county- (or local-) level data on program activities (such as from Community Partner Reports) as well as other factors (e.g., demographic, regional).

IT 4.7 through IT 4.9 are intended to assess the number of youth who even attempt to purchase cigarettes and if increased enforcement of youth access laws have resulted in an increase in the number of youth experiencing difficulty when attempting to purchase cigarettes. If increased enforcement is encouraging retailers to be more vigilant in preventing sales of tobacco to minors, then youth who try to buy cigarettes should experience more ID checks, be denied cigarettes more often because of their age, and consequently purchase fewer cigarettes in stores.

The YTS can be used to address these questions because it asks the following questions in 2000, 2002, and will ask them in 2004: “When you bought or tried to buy cigarettes in a store in the past 30 days, were you ever asked to show proof of age?” “During the past 30 days, did anyone ever refuse to sell you cigarettes because of your age?” and “During the past 30 days, how did you usually get your own cigarettes?”

Summary statistics will be prepared for each wave of the YTS to show changes over time in the responses. Multiple regression models will be estimated that relate measures of youth access enforcement (e.g., number of compliance checks, number of citations, compliance rate) to the likelihood that youth are asked for an ID, refused cigarettes because of age, or switch from stores to social sources for their cigarettes. More specifically, the likelihood that a youth will be asked for an ID, for example, will be modeled as depending on a mix of individual- and community-level factors. Individual-level factors include age or grade, race/ethnicity, and sex. Community-level measures capture the tobacco control environment in the county where the youth lives and include the number of tobacco retailers (a measure of community size), retailer compliance rate, funding for tobacco control enforcement, and other measures of program activity if they are available. We will attempt to incorporate any county-level data on program activity (e.g., from Community Partner Reports) that may be useful in characterizing local tobacco control efforts.

IT 4.5 and IT 4.6 are continuations of corresponding short-term questions, so the analyses will be carried out as new data become available. Analysis of IT 4.7, 4.8, and 4.9 can begin immediately using the 2000 and 2002 YTS. This would provide a historical set of results to compare with the 2004 YTS when it becomes available.

Long-term Evaluation Questions

Long-term evaluation questions are focused on the impact of local excise taxes and youth access enforcement on key indicators of smoking, including initiation, cessation, and prevalence. Of continuing interest are questions on retailer compliance with youth access laws and barriers to purchasing cigarettes for youth.

Long-term Qualitative Evaluation Questions

LT 4.1 How has the community support for a local cigarette excise tax changed over time?

Similar to IT 4.1, LT 4.1 examines the level of support the local community demonstrates regarding cigarette excise taxes. We will continue to use structured interviews with key stakeholders to gain an in-depth analysis of awareness, support, barriers, and successes in raising local excise taxes and how these factors have changed over time. These interviews will be conducted annually as part of the qualitative case study and results tracked over time.

Long-term Quantitative Evaluation Questions

- LT 4.2 Has there been an increase in the age of initiation of cigarette smoking among youth as a result of program activities?
- LT 4.3 Has there been a decline in the prevalence of smoking among youth as a result of program activities?
- LT 4.4 Has there been a decline in the number of cigarettes smoked daily and the number of days smoked per month among youth smokers as a result of program activities?

All three of these questions can be addressed in similar ways. We will use the YTS and youth telephone survey to address these questions for youth and the ATS and CPS for young adults.

Long-term change in increasing the age at which people start to smoke could be demonstrated by an increase in the mean (or median) age of initiation, which would be accompanied by a skewing of the age distribution toward the higher ages. In addition, with the implementation of a youth cohort, we can more explicitly understand the factors strongly associated with uptake.

We will examine the extent to which the following factors influence these outcomes:

- Increases in excise taxes and prices
- Reduced tax evasion (as a result of the shipping law)
- Decreased access to cigarettes among minors
- Decreased levels of adult smoking
- Decreased social acceptability of tobacco (e.g., decreased opportunities for public smoking, less promotion of tobacco products in retail outlets, increased favorable news media coverage of tobacco issues)
- Exposure to school-based tobacco prevention
- Community-level programmatic efforts

Using multilevel regression models, we can examine correlates of these outcomes with a combination of self-reported measures (e.g., price paid for cigarettes, ease of access, prevention lessons in schools) and merged contextual information (e.g., county-level measures of retail compliance with both self-service display ban and sales to minor laws, characterizations of the amount of tobacco promotions, the prevailing prevalence of smoking among adults [18+] in the local area, news media coverage of tobacco issues, media market measures of paid media, and the intensity of local Community Partner program activities [e.g., youth group activities]), and other contextual factors. Using the NYTS and CPS we can examine trends in these outcomes for New York State and comparison groups, accounting for observable factors for which we have data on other states (e.g., price, CIAA) to better isolate program impacts.

4.3.5 Cross-Cutting Evaluation Questions

In addition to specific programmatic activities, there are external influences (e.g., public policies, national trends) that can also affect program outcomes. Understanding these influences is essential to evaluating the program because we need to rule out alternative explanations for changes in program outcomes. For example, Section 1399 II of the Public Health Law was amended in August 2000 to prohibit the shipment of cigarettes to New York addresses other than those of licensed cigarette dealers (aka shipping law). Enforcement of the law was delayed due to legal challenges until May 2003. Enforcement began in June 2003, despite continued legal action. On a related issue, Governor Pataki recently declared his intention to enforce the collection of cigarette excise taxes from non-Native Americans who purchase cigarettes on Native American reservations. This action is in response to the increasing rates at which smokers are seeking sources for low-tax or no-tax cigarettes. Both of these policies have the potential to significantly curb tax evasion and access to low-price cigarettes. In addition, recent excise taxes in New York State and City represent important policy changes whose impact is important to isolate apart from specific TCP activities. Another emerging issue with uncertain implications for program evaluation is the regulation requiring fire-safe cigarettes.

In addition to capturing the impact of these policies on program outcomes, another cross-cutting issue has to do with a measure of tobacco use that relates to multiple outcomes: tax-paid cigarette sales. Changes in tax-paid sales can reflect decreases in consumption among current smokers, smoking cessation, reduced initiation of smoking, and tax evasion. Cigarette sales, because they are reported monthly and are available for surrounding states, represent another opportunity to evaluate the impact of the program and related policies on smoking behavior. The evaluation questions and related studies outlined below address these cross-cutting issues.

- CC 1 How has the average price of cigarettes in New York State changed over time? What factors influence the average retail price as well as the average price paid by consumers?
- CC 2 To what extent are smokers engaging in tax evasion, and are measures such as the Shipping Law and the limits on purchases on Native American reservations reducing tax evasion?
- CC 3 How have cigarette sales changed over time, and how have excise taxes, the efforts to curb tax evasion, and the TCP influenced these changes in sales?
- CC 4 How do increases in cigarette excise taxes affect the prevalence of cigarette smoking?

Evaluation Activities to Address Quantitative Cross-Cutting Research Questions:

CC 1: How has the average price of cigarettes in New York State changed over time? What factors influence the average retail price as well as the average price paid by consumers?

Several data sources are available to address CC 1, including self-reported prices from youth and adult surveys, state average annual prices, and market-level scanner data. To begin, we will track the prices that smokers report paying for their cigarettes by examining self-reported prices from

youth and adults captured from population-based surveys. The YTS asked “During the past 30 days, what did you pay for the last pack of cigarettes you bought?” This question will also be asked in the 2004 YTS. The ATS will ask a similar question beginning with the 2003 Q4 survey.

In the YTS, price paid for cigarettes is a categorical variable with categories that range from “less than \$1.00” to “\$5.00 or higher” in \$0.50 increments. We recommend expanding this range in 2004. To understand the distribution of prices, we will construct a histogram of responses for all smokers and also for certain subgroups of smokers of interest. For example, we can stratify the analysis by grade, sex, race/ethnicity, amount smoked, and geography (using county identifiers). Chi-square goodness-of-fit tests can be conducted to test for significant differences in price paid between groups within the same survey year.

To test if self-reported prices are increasing over time, the distribution of responses from different survey years can be compared. This can be done visually by comparing the histograms for each survey year and statistically by carrying out chi-square tests to compare the proportion of responses in each category. To the extent possible, we will examine these trends for New York City and the remainder of the State and examine prices for respondents near Native American Reservations and relatively lower-tax jurisdictions (e.g., Pennsylvania).

Something similar to a weighted-average price can also be calculated by taking the midpoint of each interval as the price and weighting that price by the number of responses in the category then summing the resulting products and dividing by the total number of respondents. These average prices can be compared for each survey year. Similar analyses can be conducted using the ATS. With the ATS, we can also explore the extent to which smokers are engaging in tax evasion and the sources of low-price cigarettes. We can also test the extent to which self-reports of purchases through low-price outlets have changed from baseline (close to the enforcement date of the Shipping Law).

At least two data sources can be used to track the aggregate price of cigarettes in New York. The first is *The Tax Burden on Tobacco*. This free publication reports state-level average for a pack of cigarettes (as well as sales and cigarette tax data) annually going back to 1955. This long series of historical data provides a useful context for interpreting current cigarette prices. Prices reported in *The Tax Burden on Tobacco* are based on a mail survey of retailers that has a low response rate and are calculated using methods that are not public knowledge. Therefore, our confidence in the accuracy and precision of the cigarette prices reported in *The Tax Burden* is not high. Nonetheless, *The Tax Burden* is a widely cited publication that contains state-level prices. We would use the prices in *The Tax Burden* to chart the average price per pack in New York over time to see how much prices are increasing.

A second potentially very useful data source for tracking cigarette prices is scanner data from ACNielsen. Scanner data are collected in the retail outlet where cigarettes are sold and capture all features of the tobacco product, including price, promotion (if any), and cigarette type (e.g., brand name, subbrand, menthol, light). Scanner data are reported in four non-overlapping retail markets

within New York and therefore provide a very useful source of within-state variation. Scanner data do have drawbacks, however—they are expensive and there are restrictions on releasing the information publicly—but the level of detail and timeliness is unsurpassed by any other existing data source. RTI currently licenses from ACNielsen cigarette scanner data from grocery stores reported quarterly from 1994 through 2002 and can use these data to conduct price analyses for New York State. It is likely that RTI will continue to acquire these data with support for CDC.

Using the scanner data, we can calculate the average retail price for a pack of cigarettes in each of the four retail markets in New York State and plot the results to show the time trend in prices. Average prices can be calculated for specific types of cigarettes, including premium and price discount; full-flavor, light, and ultra-light; menthol; regular, king, long, and ultra-long; and others.

CC 2: To what extent are smokers engaging in tax evasion and are measures such as the Shipping Law and the limits on purchases on Native American reservations reducing tax evasion?

In light of the newly enforced Shipping Law and Governor Pataki's intent to curb non-Native Americans' purchases of cigarettes on Native American reservations, one would expect effects on purchasing patterns of smokers. In particular, fewer smokers should be obtaining their cigarettes by mail order ("use of a toll free number"), over the Internet, or on reservations. The shift in behavior will likely be slow, dwindling to near zero only over several years.

Beginning in 2003, the ATS asks smokers if they have purchased cigarettes on a reservation, in a duty-free shop, through a toll-free number, or on the Internet in the past 12 months. These data will be used to assess the prevalence of purchasing cigarettes from these sources among young adult smokers and to examine changes over time. We hypothesize that the rate of mail order, Internet, and reservation purchasing will decrease over time. However, it will be difficult to establish that a decline in the prevalence of these behaviors is due to enforcement of the shipping and tax laws or due to a broader decline in the prevalence of smoking among New Yorkers.

In a grant proposal to CDC, Dr. Andy Hyland from RPCI proposed several new surveillance tools to assess compliance with the Shipping Law among Internet retailers and shippers and changes in smoker behavior resulting from the law. These surveillance tools include (1) developing a database of Internet retailers, ordering cigarettes from those Internet retailers, and noting if the order is filled and shipped to New York residential addresses; (2) a follow-up survey of ATS respondents who reported purchasing cigarettes from the Internet to assess changes in cessation indicators; and (3) a follow-up survey of COMMIT participants who live in New York to assess Internet purchasing and quit behavior. In the event that CDC decides not fund the grant, we recommend implementing all of the proposed studies.

CC 3: How have cigarette sales changed over time and how have excise taxes, the efforts to curb tax evasion, and the TCP influenced these changes in sales?

Cigarette sales are a key indicator of smoking, and reducing cigarette sales is a priority objective for the TCP. In New York State, there are at least four major influences on the level and rate of

change of cigarette sales, including the level of cigarette excise taxes, tax evasion resulting from increases in cigarette taxes, statewide clean indoor air laws, and TCP activities. We propose a coordinated evaluation of changes in cigarette sales that accounts for all of these factors.

Economists have been studying the impact of cigarette tax changes on consumption for a long time, and it is well-established that tax increases result in lower consumption. Using monthly tax-paid sales data, it is clear that cigarette sales typically increase markedly the month before a tax increase is scheduled to take effect, decline steeply the month after, and then rise slowly to a new trend level of sales that is lower than the trend level prior to the tax increase. Declines in cigarette sales after tax increases can also be seen clearly in annual data.

We can study the effect of cigarette taxes on cigarette sales in New York by three different methods that make use of monthly data on tax-paid cigarette sales. A simple method for assessing the effect of taxes on sales is to examine the trend in per capita sales, controlling for the excise tax and cross-border sales. It is essential to control for cross-border sales given tax differentials across the New England and Mid-Atlantic states. This simple trend analysis estimates separate trend lines (the slope of the sales line using a spline or piecewise linear regression model) for the periods prior to the March 2001 tax increase, between the March 2001 tax increase and the April 2002 tax increase, and after the April 2002 tax increase. It is then straightforward to statistically test whether the slopes are different across the three time periods. Hopefully, the results would show that the decline in per capita sales increased after each tax increase.

An extension of this method would use data from all 50 states, or a subset of states (e.g., excluding states with established comprehensive tobacco control programs), and compare the trend in per capita sales in New York to the trend in other states, again controlling for cigarette excise taxes and cross-border sales. Specifically, in a regression model, we examine the interaction of a New York dummy variable with each piecewise linear segment. This results in a comparison of the slope of the per capita sales line in New York with all the other states over a specified period of time.

A third method, which is more general than the first two, is to include a measure of the TCP in addition to the cigarette tax variable. All program activities can be reduced to one common measure—per capita expenditures on tobacco control. It would be possible to include measures of specific activities of the TCP. However, a fundamental challenge for an analysis focused only on New York is that many of the TCP activities have all started at roughly the same time. As a result, it is difficult to isolate the impact of individual program components on state cigarette sales. Furthermore, many program components have begun activities only recently, if they have begun at all, so no data are actually available for them yet. Nonetheless, as the program matures and more data become available, we can use the natural variation in the level of program funding and state cigarette excise taxes to isolate the impact of these separate effects. Hu, Sung, and Keeler (1995) used this approach for the California program, and Farrelly, Pechacek, and Chaloupka (2003) recently applied similar methods to all state programs from 1981 to 2000. The latter analysis also

controlled for the potential for cross-border sales. In this model, the coefficient on the variable measuring tobacco control funding represents the impact of the TCP net of taxes (and other potentially confounding factors). This model is an improvement over the trend analyses described above in estimating the impact of the TCP because it includes an actual measure of tobacco control effort (rather than assuming control for all important confounders and contributing program effects to the residual trend).

The three methods described above rely on state aggregate tax-paid sales data. Another possible data source for analyzing cigarette sales is cigarette scanner data. Because scanner data are reported for distinct, non-overlapping retail markets, they can be used to observe the extent to which cigarette prices and sales vary within the state. Because scanner data contain information on the type of cigarette sold, they offer the flexibility to conduct analyses that are not possible with state aggregated sales data. For example, we can test the hypothesis that sales of premium brand cigarettes fall while sales of discount brand cigarettes increase in response to cigarette tax increases.

The analyses proposed here are interesting and useful, but they do have drawbacks. Both the state tax-paid sales data and the scanner data are aggregate data, meaning that they cannot be used to make inferences about how individuals behave in response to tax changes or other program effects. Aggregate-level models are susceptible to specification bias because of the impossibility of controlling for all ecological-level influences on cigarette consumption. The scanner data that RTI currently licenses from ACNielsen are from grocery stores, where less than 15 percent of all cigarettes are sold. Scanner data from additional retail outlets, such as convenience stores, are either not currently available or very expensive to obtain. Finally, it is important to estimate, or otherwise control for, the availability of tax-free cigarettes from Native American reservations and the Internet, which is a problem deserving attention on its own merit.

While higher cigarette prices reduce consumption, a new body of evidence from New York State indicates that many smokers are circumventing the recent price increases by purchasing lower or untaxed cigarettes from other states, Indian reservations, or the Internet. This effectively reduces or eliminates the public health benefit higher cigarette prices confer. For example, population-based data from Erie and Niagara Counties reveal that 55 percent of all smokers report that their usual source of cigarettes is from an Indian reservation. Preliminary data from the New York State ATS indicate that 18 percent of smokers in New York State purchase their cigarettes from another state, Indian reservation, the Internet, or a toll-free phone number “all of the time.” This leads to our next evaluation question. Finally, using the cigarette sales data from New York State and City and surrounding states, we can attempt to tease out the potential impact of the CIAA on cigarette sales.

CC 4: How do increases in cigarette excise taxes affect the prevalence of cigarette smoking?

Smoking prevalence is a major indicator of tobacco use, and reducing smoking prevalence is a primary objective for all tobacco control programs. The prevalence of smoking among youth can be measured using the YTS, and the prevalence among adults can be measured using the ATS and

the BRFSS. Each survey allows the identification of ever smokers (people who have ever tried a cigarette, even one puff), current smokers (people who are regular smokers now), and former smokers (people who were current smokers but have since quit). We will estimate the prevalence of each of these smoking outcomes. In what follows, when we use the term “prevalence,” it should be understood to mean that the analysis being described will be carried out for the prevalence of ever smoking, current smoking, and former smoking.

We will first carry out a descriptive summary of annual prevalence for youth and adults. We will use the BRFSS to estimate the prevalence of smoking among adults in New York historically and compare it with other selected states and the United States as a whole. This historical trend of smoking prevalence will be a useful baseline for comparing the prevalence of smoking estimated using the ATS. We will also estimate the prevalence of smoking among youth using the YTS in 2000 and 2002, and again in 2004 when those data become available. Using the demographic information in these surveys, we will stratify the data to estimate smoking prevalence for several subpopulations of interest, including age group, race/ethnicity, sex, educational level, income, and marital status. Statistical tests will be applied to determine if significant differences exist between these groups.

In addition to descriptive analyses, we will use regression models to estimate the effect of changes in cigarette taxes on smoking prevalence using the BRFSS. Assessing the effect of taxes on smoking in New York will require several years of data because prevalence responds more slowly to tax changes than sales. New York has participated in the BRFSS every year since 1985, which should provide enough data to detect an effect. We will link cigarette tax information to the BRFSS respondents by year. We will then estimate logit or probit models of the likelihood that a given individual is a current smoker, conditioned on the cigarette tax and individual-level control variables, such as age, sex, race/ethnicity, education, and income. Similar models can be estimated for the prevalence of ever and former smoking. A negative coefficient on the tax variable is interpreted as meaning that increases in cigarette taxes are associated with a decline in the prevalence of smoking.

5. DISSEMINATION

As the evaluation questions are addressed, the findings will be summarized and shared with the TCP and relevant stakeholders for comment and interpretation. Results and recommendations will be detailed and tailored to particular audiences in periodic reports issued by RTI and analyzed with input from the TCP. In this section, we briefly describe our dissemination plan.

Following the CDC's Evaluation Framework, the sixth and final step involves justifying and disseminating evaluation findings. This process involves synthesizing and validating evaluation findings to assess patterns of results. As data are analyzed, we will synthesize findings into a summary of results that combines quantitative and qualitative evaluation studies. This preliminary summary will be discussed with the TCP so that our team can understand their perspective in interpreting results. We will then make judgments about program effectiveness, cost-effectiveness, and recommendations for program improvement based on these findings. These judgments and recommendations will be grounded in scientific principles as well as standards specified by the TCP.

The key features of our approach are to (1) maintain close communication, (2) facilitate ongoing program improvement by sharing findings, and (3) facilitate effective reporting and use of evaluation results. We will work closely with TCP staff to provide the scientific rigor needed to assess program effectiveness, recommend and improve program monitoring systems to satisfy accountability needs, and conduct qualitative studies to support continuous program improvement. Close communication will be accomplished by regular conference calls and possibly written quarterly reports.

As data become available, analysis will be conducted and reports issued in a timely fashion to best facilitate ongoing program improvement. To assist in this information sharing process, we believe that the reports, and their Executive Summaries, should be tailored in substance and style (level of detail, method of presentation, and amount of technical justification) to the needs of identified audiences. As the implementation of the evaluation moves forward, we suggest that RTI, the TCP, and possibly the Advisory Board meet to discuss a plan for disseminating information to program stakeholders via regular reports and other dissemination products.

RTI understands that disseminating evaluation findings means much more than creating reports. It means *translating* findings into meaningful information that is presented in a manner and context that is relevant to the work and objectives of stakeholders. Through previous evaluation studies, RTI has identified a variety of methods for disseminating results. In our work with Legacy, we developed a comprehensive dissemination plan and developed a series of *First Look Reports* to rapidly share information with a general public health audience. For this project, we plan to disseminate our evaluation findings and recommendations to a number of audiences. For example, information for TCP policy makers and other high-level administrators will emphasize major findings that might affect decisions regarding new and existing programs and policies.

Information intended for technical staff will include more detail concerning the technical approach, methodology, and statistical and economic assumptions. In addition, we often prepare a summary of successful practices as a guide to program staff. All reports, whatever their intended audience, are clearly written and of reasonable length to create a new perspective and inspire productive changes in ongoing programming. Accordingly, our team places special emphasis on planning dissemination products that are useful and applicable to the field. As noted above, we plan to work with TCP staff to determine the most useful forms for reporting findings.

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Appendix A: Evaluation Planning Matrices

Goal 1: Eliminate Exposure to Secondhand Smoke.						
Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1A: Increase the percent of adults who support or strongly support New York's comprehensive Clean Indoor Air Act (CIAA).						
1A1: TCP to provide training and technical assistance to Community Partners on strategies to increase public support for the expanded CIAA.	Community Partners trained in policy promotion	X# trainings provided to Community Partners throughout the state	Training materials revised and updated to reflect changes in the tobacco control environment	Community-based coalitions that effectively engage community members to increase support for the CIA	Community Partner Reports	
	Training materials developed by TCP to train Community Partners		X# trainings provided for new Community Partners			
1A2: Community Partners to educate community members, employers, and the media about the dangers of secondhand smoke (SHS) and the importance of effectively implementing the CIAA.	Strategic plan developed to educate the community about SHS and the CIAA for every Community Partner	SHS information dissemination plans developed by Community Partners to outline what information will be communicated to community members, employers, and the media, as well as how the information will be shared	X% of the public understand the dangers of SHS and know strategies to decrease exposure. (ATS: G10-14, may need broader measure) Increased support for the CIAA among the public (ATS: K3, K5, may need employer survey)	Decreased exposure to SHS among the public	ATS	
- 1A2.1: Community Partners to meet with key opinion leaders and media representatives to share information	Community Partners, key opinion leaders identified	Meet with X# opinion leaders, Community Partners, and media reps per year	Increase # of opinion leaders and media representatives willingness to promote and support the CIAA (community reports of expected receptivity)		PI&PR	

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1A: Increase the percent of adults who support or strongly support New York's comprehensive Clean Indoor Air Act (CIAA). (continued)						
- 1A2.2: Community Partners to organize letter writing campaigns, meetings, and advocacy activities, as appropriate to enhance support for the CIAA	Materials created for education campaign planned, including letter writing, meetings, and advocacy	X# of letters, meetings, and advocacy activities to increase news coverage and support for the CIAA	X# published news coverage			Community Partner Reports
- 1A2.3: Community Partners to work with local media to publicize importance of smoking restrictions, extent of public support for restrictions, magnitude of any exposure/compliance problem locally	Coalitions established between partners and local media	Community members contact and meet with X# of local media reps to address the importance of smoking restrictions	Community Partners develop partnerships with local media reps to publicize the CIAA			YTS
	TCP develops training materials for the media	X# media spots placed, letters to the editor				Media reports
- 1A2.4: Community Partners to raise community awareness of the tobacco industry's manipulation of information related to SHS and CIA laws	Strategic plan developed by Community Partners on strategies to raise community awareness of SHS and industry manipulation	Activities implemented	X# strategies implemented	Increased % of the public informed about industry manipulation of information related to SHS (YTS 54, 56, 57, modify ATS)		Community Partner Reports
- 1A2.5: TCP to provide media support and training	Media trained in SHS and CIAA issues	X# of trainings conducted throughout the state				Local surveys
						Community coalition reports

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1A: Increase the percent of adults who support or strongly support New York's comprehensive Clean Indoor Air Act (CIAA). (continued)						
1A3: Community Partners to conduct local surveys to determine current level of support for effective implementation of the CIAA and expansions of the CIAA (e.g., to public parks and outdoor recreation areas, areas around building entry ways) – 1A3.1 TCP and Community Partners to work to expand CIAAs	<i>Surveys developed to assess current level of support for the CIAA among the public, opinion leaders, the media, employers</i>	<i>Contacts identified by Community Partners to participate in local survey to determine level of support for the CIAA (ATS K3, K5, also address community support for CIAA)</i>	<i>Second wave of data collection to assess support for the CIAA shows increased support</i> <i>Report and results disseminated</i>	<i>Third wave of data collection shows increased support</i> <i>Report and results disseminated</i>		<i>Local surveys</i> <i>Media reports</i>
1A4: Community Partners to work with media contractor to extend and localize statewide SHS and CIAA media campaigns	<i>Coalitions between partners and local media established</i>	<i>Local SHS and CIAA media campaigns developed and implemented by partners and media coalition</i> <i>X# of media campaign ads or spots addressing SHS and the CIAA aired</i> <i>X# people report seeing ads at local level (possibly modify ATS)</i>	<i>Expansion of laws proposed</i> <i>Increased support for CIAA (ATS K3, K5)</i> <i>X# of state agencies implement smoke-free laws and policies</i>	<i>Laws expanded</i> <i>X% state agencies implement smoke-free laws and policies</i>	<i>ATS</i>	<i>Community Partner Reports</i>

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1A: Increase the percent of adults who support or strongly support New York's comprehensive Clean Indoor Air Act (CIAA). (continued)						
1A5. TCP to partner with other state agencies (such as DEC, Occupational Health, OASAS, Social Security, Insurance Commission) to effectively implement smoke-free laws and policies	<p><i>Coalition established between the TCP and other state agencies</i></p> <p><i>X# of meetings between the TCP and other state agencies</i></p>	<p><i>TCP meets regularly with other state agencies to assess status of smoke-free laws, policies, and negotiation strategies to implement policies</i></p> <p><i>Plan developed with agencies to assist Community Partners in promoting CIAA to employers</i></p> <p><i>Guidelines for implementing smoke-free laws and policies developed by TCP to share with other state agencies</i></p>	<p><i>Expansion of some agencies' power to monitor and enforce CIAA to respond to complaints about violations</i></p>			
Objective 1B: Increase the percent of workplaces that are in compliance with New York's comprehensive CIAA.						
1B1: TCP to work with Community Partners to provide resources and education to businesses and employers to effectively implement the CIAA	<i>Resources developed</i>	<i>X# of resources disseminated to businesses and employers by TCP</i>	<i>Businesses understand how and why to implement smoke-free policies</i>	<i>90-100% of businesses effectively implementing the CIAA (direct observation, reported complaints/ violations, CPS)</i>	<i>Observation</i>	<i>Complaints/ violations reported to statewide 800#</i>

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1B: Increase the percent of workplaces that are in compliance with New York's comprehensive CIAA. (continued)						
1B2: TCP to identify locations where exposure to SHS continues to occur and quantify the magnitude of the problem	<i>Baseline knowledge of CIAA implementation and compliance</i> <i>County health department checks complaints</i>	<i>Baseline measure of businesses and employers effectively implementing and complying with the CIAA conducted by Community Partners (ATS: F6-8, Employee Health Survey, CPS, direct observation)</i> <i>Results written up and disseminated to law makers, media, the public</i>	<i>X% increase in businesses in compliance with the CIAA (direct observation, reported complaints/violations, CPS, Employee Health Survey)</i> <i>Continued tracking of compliance with the CIAA (reported complaints/violations, Employee Health Survey, CPS, direct observation)</i>			<i>Local survey</i> <i>CPS</i>
1B3: Community Partners to work with media contractor to develop and implement local public relations and earned media strategies to support effort	<i>Public relations and media strategies</i>	<i>Community Partner-media coalitions develop PR and media strategies</i> <i>Implementation of PR and media strategies</i> <i>Baseline assessment of public support of the CIAA</i>	<i>Increased employer and employee support of the CIAA (ATS: K3, K5, Employee Health Survey)</i>			<i>Community Partner Reports</i>
1B4: Community Partners to implement strategic direct mail/"do-me-a-favor" drives to increase support for effective implementation of the CIAA and/or to increase support for local level expansions of the CIAA	<i>Direct mail materials developed</i>	<i>X# materials mailed</i>				<i>Observational data</i>

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1B: Increase the percent of workplaces that are in compliance with New York's comprehensive CIAA. (continued)						
1B5: Community Partners to conduct observational assessments of compliance by local businesses (bars, restaurants, bowling establishments)	Protocol developed for community assessment	Baseline estimate of # of workplaces noncompliant with the CIAA based on observational data Results disseminated	X% increase in workplaces in compliance with the CIAA based on observational data			Observational data
Objective 1C: Increase the percent of adults and youth who live in households where smoking is prohibited.						
Objective 1D: Increase the percent of adults who drive or ride in vehicles where smoking is prohibited.						
1CD1: TCP to work with media contractor to identify effective marketing strategies to promote smoke-free homes and vehicles.	Strategies designed (posters, news articles, etc. produced/distributed/published)	Campaign implemented X% products distributed X% of public aware of the campaign Baselines assessment of % of public with smoke-free home and vehicles (ATS: F1, F2, YTS: 80, 81, 85)	Increased X% of adults with smoke-free homes/vehicles (ATS: F1, F2) X% of public is aware of health effects of SHS (ATS: G10-14, YTS: 58)	Increase in % of public with smoke-free homes/vehicles Increase in % of public with smoking restrictions in home/vehicle Increased awareness of the health effects of SHS (ATS G10-G14)		ATS
- 1CD1.1: Community Partners to work with media contractor to extend and "localize" statewide messaging	X# meetings with Community Partners and contractor	Local messages developed and placed	X% of adults aware of campaign/activities (modify ATS)	"		
- 1CD1.2: Community Partners to identify local activities to reinforce and promote smoke-free home and vehicle marketing	Local activities developed to reinforce and promote smoke-free homes/vehicles	Activities identified X# activities implemented by Community Partners	X# adults recognize and agree with media message (modify ATS)	"		Community Partner Reports

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source			
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)					
Objective 1C: Increase the percent of adults and youth who live in households where smoking is prohibited. (continued)									
Objective 1D: Increase the percent of adults who drive or ride in vehicles where smoking is prohibited. (continued)									
- 1CD1.3: Community Partners to work with NYS Community Health Worker Program, local health department-certified home health agencies, private home health aide agencies, Head Start, Early Intervention, schools, and PTAs to promote smoke-free homes and vehicles	Materials or activities developed	# of coalition activities implemented	"	"					
- 1CD1.4: Coordinated school health network to provide guidance in working with schools and parent-teacher organizations to promote tobacco-free homes and vehicles	Strategy developed (materials, guidance) for schools and parent-teacher orgs	Materials and guidance provided to schools and parent-teacher organizations X# materials distributed X% of schools and PTAs decide to implement program	Activities attended by X# people Activities well received (qualitative)	"					
- 1CD1.5: Quitline to develop and include informational brochures on establishing smoke-free homes and vehicles in all mailings to callers	Materials for callers to the Quitline	X# materials distributed to callers	Community Partners to check if materials were posted/distributed	"	Community Partner Reports				

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source			
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)					
Objective 1C: Increase the percent of adults and youth who live in households where smoking is prohibited. (continued)									
Objective 1D: Increase the percent of adults who drive or ride in vehicles where smoking is prohibited. (continued)									
- 1CD1.6: Community Partners to identify local target areas to publicize messages (libraries, hospitals, baby changing stations, nursery schools, head start programs, car seat check programs, day care centers) and local target groups to receive messages (asthma patients, people in cessation programs)	Promotion materials and strategies designed and implemented	Local areas identified <i>X# messages developed</i> <i>X# messages disseminated</i>	"	"		Report by ADA			
1CD2: TCP to collaborate with NYS Automobile Dealers Association to create a program for higher trade-in values of smoke-free vehicles	Trade-in program developed	Trade-in program promoted throughout the state	Increased % of respondents prefer smoke-free vehicles (modify ATS)	Dealerships report seeing more smoke-free cars traded in Increased % of public has smoke-free cars		ATS			
1CD3: TCP to collaborate with Division of Motor Vehicles (DMV) to publicize and promote benefits of smoke-free vehicles	Collaboration between TCP and DMV	X% of dealers agree to implement program X% of people aware of the trade-in program				Policy data			

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source			
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)					
Objective 1C: Increase the percent of adults and youth who live in households where smoking is prohibited. (continued)									
Objective 1D: Increase the percent of adults who drive or ride in vehicles where smoking is prohibited. (continued)									
1CD5: TCP and Community Partners to work with automobile rental companies to strengthen policies and messages to reduce tobacco use in vehicles	Argument developed for new policies	Collaboration established Materials developed Materials disseminated	Increased # of insurance plans accept/implement new policies <i>X# of people enroll in new plans</i>	Policy passed for smoke-free fleet		Insurance reports			
1CD6: TCP to collaborate with NYS Commissioner of Insurance to encourage all insurance agencies to offer reduced rates in home, apartment, and vehicle insurance for smoke-free homes, apartments, and vehicles	TCP and NYS Insurance collaboration Reduced rates plan	# of rental companies or agencies agreeing to implement policy Plan developed to encourage insurance agencies to offer reduced rates Insurance plans accept/implement new policies	# of agencies that agree to a rate-reduction plan Program awareness increases X% X% of people have smoke-free bans in their vehicles (ATS F2) X% of insurance agencies offer reduced rates X% of public aware of the reduced rates program	Increase # of people enrolled in new insurance plans (data from insurance companies)		ATS			
1CD7: TCP to monitor progress toward achievement of these objectives in the population as a whole and aid specific subpopulations that are disproportionately affected by this issue/problem			Strategies, media campaigns and programs reach specific subpopulations (ATS A1, A2)	Strategies, media campaigns, and programs reach specific subpopulations (ATS A1, A2)					

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1E: Increase the number of educational institutions (elementary, secondary, and post-secondary) that implement effective tobacco-free policies to eliminate tobacco use from all facilities, property, vehicles, and events.						
1E1: Conduct an assessment of the tobacco-free status of high school and post-secondary educational institutions	Survey and distribution strategy designed	Baseline data collection conducted to assess % of high school and post-secondary educational institutions that are smoke free	Follow-up data collection conducted	Trend of increasing % of educational institutions that are smoke free	Survey of educational institutions	
- 1E1.1: TCP and Community Partners to work with evaluation contractor to conduct a statewide assessment of tobacco use on a representative sample of middle and high schools and post-secondary campuses	Youth survey	Population-weighted average of # people affected by policies Results reported to TCP and other stakeholders X# of institutions identified	Population-weighted average of # people affected by policies	Population-weighted average of # people affected by policies	Youth survey	
- 1E1.2: ACS/CAAT and Community Partners, in cooperation with NYS College Health Educators Association and Baccus and Gamma, to identify and catalog post-secondary institutions that currently effectively implement tobacco-free policies.			Revision and update of institution catalog conducted "Best Practices" report developed for distribution			

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1E: Increase the number of educational institutions (elementary, secondary, and post-secondary) that implement effective tobacco-free policies to eliminate tobacco use from all facilities, property, vehicles, and events. (continued)						
1E2: Collaborate with educational institutions to provide resources and support for effective implementation of tobacco-free school policies	<i>Collaboration with educational institutions</i>					
<ul style="list-style-type: none"> - Coordinated School Health Network to • Establish protocol for working with schools to effectively implement tobacco-free schools policies and test protocol on set of pilot middle and high schools • Identify and catalog effective procedures for handling tobacco-free school policy violations by employees, students, and visitors at primary and secondary schools 	<p><i>Educate, incite debate, and encourage development of policies</i></p> <p><i>Protocol developed</i></p> <p><i>Catalog of enforcement policies</i></p>	<p><i>Protocol pilot tested</i></p> <p><i>Identified list of schools to contact</i></p>	<p><i>Protocol revised based on pilot test</i></p> <p><i>Protocol implemented in X# schools</i></p>	<p><i>Increased % of schools engaged by CSHN</i></p>		<i>School survey</i>

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1E: Increase the number of educational institutions (elementary, secondary, and post-secondary) that implement effective tobacco-free policies to eliminate tobacco use from all facilities, property, vehicles, and events. (continued)						
• Collaborate with Community Partners to encourage environmental change within the community and educational institutions to effectively implement tobacco-free policies	<i>Identify and enlist partners</i>	<i># of partners within community coalitions working on school policy change/SHS Schools implement violation responses</i>		<i>X% fewer violations in educational institutions</i>		<i>School survey</i>
• ACS/CAAT to establish protocol for working with post-secondary schools to effectively implement tobacco-free schools policies and test protocol on set of pilot post-secondary campuses, including protocols that address the unique needs of SUNY campuses, community colleges, and private colleges	<i>Protocols established</i>	<i>Partners support efforts Protocols pilot tested Protocols refined based on pilot test</i>		<i>X# of new educational institutions enact smoke-free policies Protocols implemented more extensively</i>		
• TCP to provide signage and support to effective tobacco-free policies to educational institutions	<i>TA support provided</i>		<i>Support provided to educational institutions</i>			

Goal 1: Eliminate Exposure to Secondhand Smoke.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 1E: Increase the number of educational institutions (elementary, secondary, and post-secondary) that implement effective tobacco-free policies to eliminate tobacco use from all facilities, property, vehicles, and events. (continued)						
• Community Partners to work with media contractor to develop and implement local marketing campaigns to raise awareness about and increase support for effective implementation of tobacco-free campus policies	Marketing campaign	<p>X# marketing spots places</p> <p>Survey on campuses about the marketing campaign received</p>	<p>X# schools have CIA policies in place</p> <p>X# violations recorded</p> <p>X% of public aware of campaign</p>	<p>Decrease in violations at schools</p>		School surveys

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults.						
2A.1: TCP to issue RFA and work with media contractor to implement effective countermarketing campaigns to counter tobacco industry promotional activities Messaging should appear on the following media: TV, radio, movie theaters, convenience stores, events, news stories, opinion/ed writing; local action should target specific tobacco industry promotions (e.g., bar promotions)	<p>RFA issued and awarded</p> <p>Multimedia campaign designed and marketing products produced and placed</p> <p>Materials pretested/ and plan implemented</p> <p>Regular reports from media contractor on methods, targets and results</p> <p>X# of people saw media campaign (ATS: J4-10)</p> <p>X# of local media coverage (ATS: J12)</p>	<p><i>Increased awareness about tobacco marketing (ATS J54): Aware of efforts by cigarette companies to keep smokers addicted to tobacco)</i></p> <p><i>Increase in perceived exposure to countermarketing messages among youth and adults (ATS: J4-10. Need measure for youth)</i></p>	<p>Youth and adults receptive of messages (ATS: J35-37, J40-42, 45-47. Need measure for youth)</p> <p><i>Increase in receptivity of antitobacco campaign among youth and adults (ATS and additional measurements needed)</i></p> <p><i>Decrease in the proportion of young people who believe that people who smoke have more friends (YTS: 52)</i></p> <p><i>Increase in the proportion of adults who support CIAA and other tobacco control policies (ATS: K5)</i></p> <p><i>Increase in the proportion of youth who believe they can resist peer pressure to smoke (YTS: 64)</i></p>	<p><i>Increase in antitobacco attitudes (ATS: J4-10, K5, K18, 19)</i></p> <p><i>Increase knowledge of tobacco-related diseases (ATS: G4-14)</i></p>	ATS: K5: attitude toward CIAA	ATS YTS
					ATS: K18, 19: More or less likely to go to a bar/ restaurant post CIAA	Media reports
					ATS: Awareness of and feedback on specific ads J33-47	

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
- 2A.1.1: Community partners to work with media contractor to extend and enhance the statewide campaign locally and to maximize media coverage of local antitobacco promotion activities	<i>X# of people saw media campaign (ATS: J33-47), and media reports, hits on web sites (if applicable)</i>		<i>Increase in beliefs among youth that smoking does not make them look cool or fit in (YTS: 59)</i>			
	<i>X# of youth saw media campaign (measure needed)</i>		<i>Increase in media coverage about tobacco-control efforts (media reports)</i>			
	<i>Community partners contribute to x# op/ed pieces</i>	<i>Increase in amount of local media coverage of antitobacco promotion activities (news media tracking)</i>	<i>Increase in receptivity of antitobacco campaign among youth and adults (ATS and additional measurements needed)</i>	<i>Increase in antitobacco attitudes (ATS: J4-10, K5, K18, 19)</i>	<i>ATS: K5: attitude toward CIAA</i>	<i>Community Partner reports</i>
	<i>Products pretested and placed at state and local levels</i>	<i>Increased awareness about tobacco marketing (ATS J54: Aware of efforts by cigarette companies to keep smokers addicted to tobacco)</i>	<i>Decrease in the proportion of young people who believe that people who smoke have more friends (YTS: 52)</i>	<i>Increase knowledge of tobacco-related diseases (ATS: G4-14)</i>	<i>ATS: K18, 19: More or less likely to go to a bar/restaurant post CIAA</i>	<i>News media reports/clipping service</i>
	<i>Media contractor reports detail methods, targets, and results</i>		<i>Increase in the proportion of adults who support CIAA and other tobacco control policies (ATS: K5)</i>		<i>ATS: awareness of and feedback on specific ads J33-47</i>	<i>ATS</i>
	<i># of community partners the media contractor worked with (x# meetings)</i>					<i>YTS</i>

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
	<i>Local strategy and products developed</i>					Media reports
	# of local media spots publicizing local antitobacco promotion activities		<i>Increase in media coverage about tobacco-control efforts</i>			Media reports
- 2A.1.2: Youth partners to work with media contractor to extend and enhance reach of the statewide campaign to youth	<p>Youth group members contribute to x# op-eds (news media tracking reports)</p> <p># of local media spots publicizing youth focused antitobacco activities (news media tracking reports)</p>	<p><i>Increase in youth awareness of (and attendance at) antitobacco activities</i></p> <p><i>Increase in proportion of adults and youth who understand dangers of light and low-tar cigarettes</i></p> <p><i>Media campaign reaches specific groups. (media reach data; ATS confirmed awareness)</i></p>	<p><i>Increased awareness about tobacco marketing (ATS J54: Aware of efforts by cigarette companies to keep smokers addicted to tobacco)</i></p> <p><i>Increase in receptivity of antitobacco campaign among youth and adults (ATS and additional measurements needed)</i></p> <p><i>Decrease in the proportion of young people who believe that people who smoke have more friends (YTS: 52)</i></p> <p><i>Increase in the proportion of youth who believe they can resist peer pressure to smoke (YTS: 64)</i></p>	<p><i>Reduction in # youth and young adults who initiate tobacco use (YTS)</i></p> <p><i>Increase in antitobacco attitudes (ATS: J4-10, K5, K18, 19)</i></p> <p><i>Increase knowledge of tobacco-related diseases (ATS: G4-14)</i></p>	Community Partner reports	News media reports/ clipping service
					ATS	
					YTS	

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
2A.2: TCP to work with media contractor to implement effective media and public relations strategies to educate consumers about their tobacco products (low tar, filter vents, filter fiber fallout, menthol and other additives)	<i>Events held and well attended/received (# in attendance)</i>	<i>Stakeholders' perceptions of impact of event (stakeholder interviews)</i>	<i>Increase in beliefs among youth that smoking does not make them look cool or fit in (YTS: 59)</i>	<i>Increase in media coverage about tobacco-control efforts (media reports)</i>	<i>Increase in knowledge and perception of high and low tar cigarettes (ATS: G2, 3)</i>	<i>Decrease in sales of certain products</i>
	<i>Community partners used new tools in planning/ implementing activities (# media spots re: event—ads, op/eds, other media—tracked by media reports and news clipping service</i>	<i>Increase in proportion of adults and youth who understand dangers of light and low-tar cigarettes</i>	<i>Increase in type switching or use of PREPs (may indicate efforts to choose "healthier" option, or may signal miscommunication) (ATS C9-10, D6, 7)</i>		<i>Increase in the # people who report trying /successful at cessation (ATS: D1-4)</i>	ATS
- 2A.2.2: Community partners to work with media contractor to extend and enhance the statewide campaign locally	<i>Community partners solicit qualitative data on perceptions of event (how did you hear about it?) and perceptions of tobacco use among youth and adults</i>	<i>Activities were more effectively carried out (measure according to specific activity goals—policy, awareness, etc. via: stakeholder interviews and # of media spots)</i>			<i>Increase in knowledge and perception of high and low tar cigarettes (ATS: G2, 3)</i>	YTS
					<i>Reduction in # youth and young adults who initiate tobacco use (ATS)</i>	

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
- 2A.2.3: Youth partners to work with media contractor to extend and enhance reach of the statewide campaign to youth	Community and youth partners survey attendees of events to ask how they heard about the event (newspaper, friend, etc.)	Media campaign reaches specific groups (media reach data; ATS confirmed awareness)		Increase in the # people who report trying/successful at cessation (ATS: D1-4)	YTS	Community Partner reports
	# of youth partners the media contractor worked with (x# meetings)	Increase in youth awareness of (and attendance at) antitobacco activities	Increased awareness about tobacco marketing (ATS J54: Aware of efforts by cigarette companies to keep smokers addicted to tobacco)	Reduction in # youth and young adults who initiate tobacco use (YTS)	Community Partner reports	
	Local youth strategy and products developed	Increase in proportion of adults and youth who understand dangers of light and low-tar cigarettes	Increase in receptivity of antitobacco campaign among youth and adults (ATS and additional measurements needed)	Increase in antitobacco attitudes (ATS: J4-10, K5, K18, 19)	News media reports/clipping service	
	Local campaign designed and educational materials produced	Media campaign reaches specific groups. (media reach data; ATS confirmed awareness)	Decrease in the proportion of young people who believe that people who smoke have more friends (YTS: 52)	Increase knowledge of tobacco-related diseases (ATS: G4-14)	ATS	
	X# training sessions held and x# materials distributed		Increase in the proportion of youth who believe they can resist peer pressure to smoke (YTS: 64)			YTS
			Increase in proportion of adults and youth who understand dangers of light and low-tar cigarettes			

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
2A.3: TCP to work with community partners to coordinate local and statewide initiatives to denormalize and deglamorize tobacco use, and expose tobacco industry promotional activities	Events held and well attended/received (# in attendance)	Stakeholders perceptions of impact of event (stakeholder interviews) Increased awareness about tobacco marketing (ATS J54): Aware of efforts by cigarette companies to keep smokers addicted to tobacco)	Increase in proportion of adults and youth who understand dangers of light and low-tar cigarettes		ATS: D23 b, c, e, f: quit because of health concerns	ATS
- 2A.3.1: Initiatives should include specified targets, visible actions, earned media, public education, and culminating press events	# of youth partners the media contractor worked with (# meetings)	Community and youth partners survey attendees of events to ask how they heard about the event (newspaper, friend, etc.) and perceptions of tobacco use among youth and adults) Local adult and youth strategy and products developed	Activities were more effectively carried out (measure according to specific activity goals—policy, awareness, etc via: stakeholder interviews and # of media spots)		ATS (knowledge/perceptions) G2, 3: high and low tar	Community Partner Reports
	Campaign designed and educational materials produced	Media campaign reaches specific groups (media reach data; ATS confirmed awareness)			ATS: D1-4 cessation attempts	
					ATS: C9-10 type switching	
					ATS: D6, 7: use of PREPs	

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
	<i>Events and media campaign planned</i>				ATS: B7: age of initiation	
2A.4: TCP to provide training to community partners on implementing local media literacy/media advocacy activities	X# training sessions held and # materials distributed	<i>Activities were more effectively carried out (measure according to specific activity goals—policy, awareness, etc via: stakeholder interviews and # of media spots.)</i>			Media reports	
	<i>Events and media campaign planned</i>				Community Partner Reports	
	<i>Local campaign designed and educational materials produced</i>					
	<i>Community partners used new tools in planning/ implementing activities (# media spots re: event—ads, op/eds, other media—tracked by media reports and news clipping service</i>					

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
2A.5: Community partners to use earned media and paid advertising to counter pro-tobacco advertising and increase awareness of tobacco marketing practices	<i>Events and media campaign planned</i>	<i>Increased awareness about tobacco marketing (ATS J54: Aware of efforts by cigarette companies to keep smokers addicted to tobacco)</i>		<i>Reduction in # youth and young adults who initiate tobacco use (YTS)</i>		Media reports
	<i>Campaign designed and educational materials produced</i>		<i>Increase in receptivity of antitobacco campaign among youth and adults (ATS and additional measurements needed)</i>	<i>Increase in antitobacco attitudes (ATS: J4-10, K5, K18, 19)</i>		Community Partner Reports
	<i>Local strategy and products produced</i>		<i>Increase knowledge of tobacco-related diseases (ATS: G4-14)</i>			ATS
	<i>Community partners contribute to x# op/ed pieces</i>		<i>Decrease in the proportion of young people who believe that people who smoke have more friends (YTS: 52)</i>			YTS
	<i>Products pretested and placed at state and local levels</i>					

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
	<p><i>Media contractor reports detail methods, targets, and results</i></p> <p><i># of community partners the media contractor worked with (# meetings)</i></p> <p><i># of local media spots publicizing local antitobacco promotion activities</i></p> <p><i>X# of local media coverage (ATS: J12)</i></p> <p><i>X# of people saw media campaign (ATS (J33-47), and media reports, hits on web sites (if applicable)</i></p>					

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2A: Increase antitobacco attitudes among youth and adults. (continued)						
2A.6: TCP to monitor progress toward achievement of this objective in the population as a whole and in specific subpopulations that are disproportionately affected by this issue/problem			Above general population measures of POP advertising will be assessed regarding their application to specific populations.	Rates of tobacco use among specific subpopulations	ATS: A2-3 Race/ ethnicity; B1-6 tobacco use	Community Partner Reports ATS YTS <i>Regular community assessment report re: POP ads</i> Community coalition reports
Objective 2B: Reduce tobacco sponsorship of sporting, cultural, and entertainment and other events in the community, region, and state.						
2B.1: TCP to work with evaluation contractor to develop methodology to assess extent of tobacco sponsorship in NYS, including variation in level of sponsorship in different communities (rural/urban, ethnic, income)	Evaluation contractor search and contracted TCP and evaluation contractor develop assessment plan	Increase in the number of tobacco-free events at the community or State level (tracked by community coalition activity reports)	Increase in the number of adults who support policies restricting tobacco sponsorship (future addition to ATS?)	Assessment occurs annually to track changes	ATS: J13-20 awareness of tobacco advertising (including placement)	Community partner reports

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2B: Reduce tobacco sponsorship of sporting, cultural, and entertainment and other events in the community, region, and state. (continued)						
- 2B.1.1: Community partners to implement assessment protocol locally	<i>Community and youth partners engage in assessment and write up their findings</i>	<i>Community groups track process and difficulties (and how they were overcome) for summary report that can be used as a guide in the future</i>				<i>Assessment report</i>
	<i>Assessment findings disseminated to partners and business leaders</i>	<i>Increased awareness among adults about the effects of tobacco sponsorship (future addition to ATS)</i>				<i>Community coalition reports</i>
	<i>Presentations given to community to expose the purpose and magnitude of tobacco industry sponsorship</i>					<i>ATS</i>

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2B: Reduce tobacco sponsorship of sporting, cultural, and entertainment and other events in the community, region, and state. (continued)						
	<i>Education at events about tobacco sponsorship issues</i>			<i>Above general population measures will be assessed regarding their application to specific populations</i>		
	<i>TCP identifies methods and alternatives to tobacco sponsorships</i>					
	<i>TCP conducts trainings and distributes materials (# of trainings and materials distributed)</i>					
2B.2: TCP to identify and provide training to community partners and youth partners on alternatives to tobacco industry sponsorship and strategies to reduce tobacco industry sponsorships					<i>Monitor community partner reports and ATS</i>	

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2B: Reduce tobacco sponsorship of sporting, cultural, and entertainment and other events in the community, region, and state. (continued)						
- 2B.2.1: Community partners to identify at least two local events each year from which to eliminate tobacco industry sponsorship	<i>Specific events identified</i>					
	<i>Presentations given to community to expose the purpose and magnitude of tobacco industry sponsorship</i>					
	<i>Discuss sponsorship issues at Chamber of Commerce meetings</i>	<i>Event coordinators identify and secure alternative sponsors than tobacco industry</i>	<i>Decrease in the proportion of youth and adults who have noticed tobacco promotions (ATS: J21-J27. Need youth measure)</i>	<i>Tobacco industry sponsorship reduced at local events</i>		<i>Community Partner reports</i>
	<i>Action plan developed and implemented to engage event organizers in efforts</i>					
	<i>Education at events about tobacco sponsorship issues</i>	<i>Elimination of tobacco sponsorships</i>	<i>Increase in the number of young people who report that they would not wear or use something with a tobacco name or picture on it (YTS: 28)</i>		<i>ATS: J21-27: awareness of tobacco promotion (including special offers and events)</i>	

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
	<p><i>TCP identifies methods and alternatives to tobacco sponsorships</i></p> <p><i>TCP conducts trainings and distributes materials (# of trainings and materials distributed)</i></p>				ATS: A2-3 Race/ ethnicity; B1-6 tobacco use	Community coalition reports
2B.3: TCP to monitor progress toward achievement of this objective in the population as a whole and in specific subpopulations that are disproportionately affected by this issue/problem			Above general population measures of POP advertising will be assessed regarding their application to specific populations.	Rates of tobacco use among specific subpopulations	ATS: A2-3 Race/ ethnicity; B1-6 tobacco use	Community Partner Reports ATS YTS Regular community assessment report re: POP ads Community coalition reports

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2C: Reduce tobacco use and promotion in movies, arts, and entertainment.						
2C.1: TCP to develop tool kit for statewide movie initiative	Took kit developed Tool kit disseminated to community partners	Increase in number of community partners who used tool kit in developing activities.				Community partner reports
2C.2: Community partners to implement tool kit activities and locally appropriate activities to raise awareness of the promotion of tobacco products in movies, art, and entertainment and decrease consumer acceptability to such promotion	Activities planned X# people attended activities	Increase in media coverage of activities related to movie initiative	Increased awareness of tobacco promotion in movies, art, entertainment (Need to modify ATS to get at specific measures, need youth data)	Increased awareness of tobacco promotion in movies, art, entertainment (Need to modify ATS/YTS to get at specific measures)	ATS	
	X# people were receptive of activities/events/information (survey participants)		Decreased consumer acceptability of promotion of tobacco products in movies, art, entertainment (ATS, need youth data)	Decreased consumer acceptability of promotion of tobacco products in movies, art, entertainment (ATS, need youth data)	YTS	Community partner reports

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2D: Reduce the proportion retailers that post point-of-purchase tobacco advertising.						
2D.1: TCP to work with evaluation contractor to develop methodology to assess extent of tobacco POP advertising in a representative sample of retail stores, including assessing variation in level of POP advertising in different communities (rural/urban, ethnic, income)	<p><i>TCP and evaluation consultant develop assessment plan</i></p> <p><i>Summary report of "Check It" campaign produced</i></p> <p><i>Direct community assessment of POP advertising conducted and report written (similar to operation storefront)</i></p>		<p><i>Increase in the number of communities with ordinances restricting POP tobacco advertising in retail locations (coalition reports and press)</i></p> <p><i>Decreased tobacco advertising in shops and bars (ATS: J15, 18)</i></p>		<p><i>Survey conducted by community and youth partners</i></p>	<p><i>Coalition activity reports</i></p>
- 2D.1.1: Youth partners to organize and catalog information obtained from the 2001/2002 Check It campaign	<i>Reports issued to partners and policy makers</i>		<i>Decrease in the percentage of young people who report seeing tobacco advertising at retail locations (YTS 74)</i>			<i>Survey retailers</i>
- 2D.1.2: Community and youth partners to conduct assessment as outlined by TCP and the evaluation contractor	<i>Survey retailers to assess issues and barriers to reducing POP advertising (results inform plan to reduce POP advertising)</i>		<i>Increase in the number of communities with ordinances restricting tobacco advertising near schools, parks, and playgrounds (coalition reports and press)</i>			

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2D: Reduce the proportion retailers that post point-of-purchase tobacco advertising. (continued)						
2D.2: TCP to develop educational tools to increase awareness among retailers of the role of POP advertising in promoting youth tobacco use	<i>Partnership established and plan developed for engaging partners (also based on needs assessment: 2C.2 above)</i>	<i>Increase in the # of organizations in the community taking a stance against POP ads (coalition reports)</i>		<i>Decreased tobacco advertising in shops and bars (ATS: J15, 18)</i>	ATS: J15, 18	<i>Coalition awareness of tobacco advertising in shops and bars</i>
- 2D.2.1: Community partners to disseminate information locally on the role of POP advertising in promoting youth tobacco use and sustaining tobacco use in the community. Partners to encourage elimination of POP advertising	<i>Plan implemented to raise support and change marketing practices (also based on needs assessment: 2C.2 above)</i>			<i># of vendors who decrease tobacco POP ads and total tobacco ads</i>	ATS YTS	
	<i>Materials distributed (#)</i>			<i>Decrease in the percentage of young people who report seeing tobacco advertising at retail locations (YTS 74)</i>		<i>Regular community assessment report re: POP ads</i>
	<i>Presentations given (#)</i>			<i>POP advertising reduced (community assessment reports 2C.1)</i>		<i>Survey retailers</i>
	<i>X# of educational sessions to retailers on ad impact</i>					

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2D: Reduce the proportion retailers that post point-of-purchase tobacco advertising. (continued)						
- 2D.2.2: Community partners design plan for encouraging elimination of POP advertising						
2D.3: TCP to partner with trade associations to encourage participants not to sell advertising space to tobacco companies	<p><i>TCP develops materials and presentation</i></p> <p><i>Individuals within trade association identified to partner</i></p> <p><i>Partners identified and plan developed to work with partners</i></p>		<p><i>Case made and support raised regarding policy to restrict tobacco advertising at events</i></p> <p><i>Policy debated and written within trade association</i></p>		<p><i>Policy passed, implemented, and enforced by partner trade associations</i></p>	<p><i>Coalition activity reports</i></p> <p><i>Press reports</i></p> <p><i>Regular community assessment report re: POP ads</i></p>

Goal #2: Decrease the Social Acceptability of Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 2D: Reduce the proportion retailers that post point-of-purchase tobacco advertising. (continued)						
2D.4: TCP to work with the Department of Agriculture and Markets to ban the sale of candies, gum, and other snacks that resemble tobacco products or that use packaging similar to tobacco products	<p><i>TCP meets with Dept. of Agriculture and Markets</i></p> <p><i>Legal/logistical issues of ban are explored</i></p> <p><i>Plan for instituting ban is jointly considered by TCP and Dept. of Agriculture and Markets</i></p>		<p><i>Case made and support raised regarding policy</i></p> <p><i>Policy debated and written</i></p>	<p><i>Policy passed, implemented, and enforced</i></p>		<i>Coalition activity reports</i>
2D.5: TCP to monitor progress toward achieving this objective in the population as a whole and in specific subpopulations that are disproportionately affected by this issue/problem			<p><i>Above general population measures of POP advertising will be assessed regarding their application to specific populations</i></p>	<p><i>Rates of tobacco use among specific subpopulations</i></p>	ATS: A2-3 Race/ ethnicity; B1-6 tobacco use	ATS YTS <i>Regular community assessment report re: policy change</i>
						<i>Community coalition reports</i>

Goal 3: Promote Cessation from Tobacco Use.						
Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3A: Increase the number of health care provider organizations (HCPOs) that have a system in place to implement the Preventive Services Task Force clinical guidelines for cessation.						
3A1: Provide grant support to HCPOs to develop and implement tobacco use screening and assessment systems (TUSAS) consistent with the Clinical Practice Guideline (CPGs) for Treating Tobacco Use and Dependence	RFA developed and released by (date) Marketing plan for RFA developed and implemented by (date)	X% of grantees report successful system implementation (in required Quarterly Report); unsuccessful or nonapplicants report barriers		Evaluation of initial and second-generation grantees shows continued progress in implementation of TUSAS, as documented in ATS results or patient interviews	To be derived from current ATS (see "intermediate" and "long-term" columns)	NY ATS
- 3A1.1 <u>TCP</u> to develop/release an RFA for HCPOs or others to develop and implement TUSAS	X# of HCPOs submit applications X# of state-level grants funded	X% of local mini-grant recipients report successful system implementation; barriers and facilitators to implementation reported	Increase in ATS responses in desirable direction (1) # of NYS residents who report they were asked about tobacco use by their HCP (ATS D16)			Survey of HCPOs
- 3A1.2 <u>Community Partners (i.e., cessation centers)</u> to provide mini-grants to local HCPOs to implement TUSAS	Contract/agreement language for grantees developed by TCP TCP develops curriculum for training Community Partners in how to implement a mini-grant program	ATS oversampling provides baseline for key elements of degree to which TUSAS have been implemented in grantee geographic areas (see next column)	(2) # of NYS smokers who report they were advised to quit by a HCP (ATS D17) (3) "When an MD, nurse, or other HP advised you to quit smoking, did s/he do any of the following ("a" thru "f")? (ATS D18a-f) (4) # of adult smokers who report a HCP suggested to call the QL (ATS D18d)	TCP survey of HCPOs and HCPs determines degree to which "best practice" is diffusing through medical community		Survey of HCPs

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3A: Increase the number of health care provider organizations (HCPOs) that have a system in place to implement the Preventive Services Task Force clinical guidelines for cessation. (continued)						
	TCP develops monitoring system for Community Partner mini-grants X# of local mini-grants funded		TCP continues dissemination of "best practices" as observed in grantee HCPOs to broader medical community		Cessation center quarterly reports	
	TCP + RTI develop survey of HCPOs to determine baseline for HCPO policies for use of TUSAS consistent with CPGs	RTI baseline survey of HCPOs to determine HCPO policies for use of TUSAS consistent with CPGs	HCPO survey shows increased % of HCPO's have implemented policies to ensure use of TUSAS consistent with CPGs	Continued increase in clinical policy adherence (HCPO survey)	Semiannual interviews with cessation center staff	
	TCP + RTI develop survey of physicians to determine baseline for HCP use of TUSAS consistent with CPGs		HCP survey shows increased % of HCP's have implemented policies to ensure use of TUSAS consistent with CPGs	Continued increase in clinical policy adherence (HCP survey)		
3A2: TCP and cessation centers to work with the NYS Smokers Quitline (QL) to establish patient referral systems for local HCPs and the QL		Increase in # of HCPOs who enter into a formal agreement with the QL (HCPO survey)	(5) # of adult smokers who report getting cessation help from a free telephone QL (ATS D12c)	# of enhanced proactive counseling services provided by the QL (program records)		
- 3A2.1 TCP to develop supportive materials for provider organizations		# of enhanced proactive counseling services provided by the QL (program records)	# of additional HCPOs receiving round 2 funding (either from TCP or CPs) following initial evaluation of impacts	Increase in # of adult smokers who report a HCP suggested to call the QL (ATS D18d)		

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3A: Increase the number of health care provider organizations (HCPOs) that have a system in place to implement the Preventive Services Task Force clinical guidelines for cessation. (continued)						
- 3A2.2 TCP to enhance support to the QL to establish referral system and proactive counseling service	<p><i>TCP develops and supplies materials to HCPOs (through Community Partners) that enhance the HCPs' ability to refer patients to the QL</i></p> <p><i>TCP develops specifications preferred in a referral system and proactive counseling service and develops modified contract with QL to include these requirements</i></p> <p><i>TCP survey of HCPs developed and negotiated to include questions on referrals to QL</i></p>	<p>HCP survey results provide baseline rates of QL referrals from HCPs and lists of nonactive HCPOs</p> <p># of referrals to QL by HCPs increases (per HCP survey) QL report shows increase in callers referred by HCPs</p> <p># of adult smokers who report a HCP suggested to call the QL (ATS 4.40) increases # of referrals to QL by HCPs increases (per HCP survey)</p>	<p>HCP surveys show positive changes in desirable directions (see previous column)</p> <p>TCP disseminates/publicizes "best practices" as observed in grantee HCPOs to broader medical community</p> <p># of enhanced proactive counseling services provided by the QL (program records)</p>	<p>Increase in # of adult smokers who report getting cessation help from a free telephone QL (ATS D12c)</p> <p>TCP survey results show increased rate of referral to QL by HCPs</p> <p>Increase in longer-term outcomes (ATS):</p> <p>ATS D.1: # of smokers who have stopped smoking for 1+ days when trying to quit</p>		QL program records + QL FUP surveys

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3A: Increase the number of health care provider organizations (HCPOs) that have a system in place to implement the Preventive Services Task Force clinical guidelines for cessation. (continued)						
	Cessation center distribution of materials and other activities promoting the QL, and barriers and facilitators in doing so (Quarterly Report)		QL report shows increase in callers referred by HCPs		ATS D.2 # of smokers who attempted to quit XX times ATS D.3 # of smokers who quit for at least XX days ATS D20: # of smokers seriously considering stopping smoking within the next 6 months ATS D21: # of smokers planning to stop smoking within next 30 days	
Objective 3B: Increase the number of Medicaid recipients who access pharmacotherapy for smoking cessation through the Medicaid program.						
3B1: Educate pharmacists, Medicaid providers, and Medicaid recipients about the pharmacotherapy benefit	Media materials developed Media implementation plan finalized	Media plan implemented (program records) # of sites/venues where messages are "broadcast"	QL reports # of materials distributed to providers or Medicaid recipients, by county Annual Office of Medicaid reports on program usage shows increases (2003: 64,000; 2004: 80,000)	Increase in # of materials distributed by QL to providers and/or Medicaid recipients, by county Annual Office of Medicaid reports on program usage shows increases (2008 +)	2000 = 30,866 (# of Medicaid recipients who access pharmacotherapy through the Medicaid program)	Office of Medicaid reports
- 3B1.1 TCP and partners to develop culturally sensitive and literacy appropriate (CS&LA) informational posters, brochures, and media messages to promote Medicaid benefit						

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3B: Increase the number of Medicaid recipients who access pharmacotherapy for smoking cessation through the Medicaid program. (continued)						
- 3B1.2 Community Partners to work with local Medicaid providers to increase awareness and use of benefit	TCP and CPs' presentations and/or provision of materials to X% of local Medicaid providers by (date) (CP Quarterly reports)	NYS ATS, 4.18: Did your health insurance cover all or part of the cost of any medication used to help you quit smoking? (of Medicaid recipients)	Increase in positive response to NYS ATS 4.18 (see previous column)			
- 3B1.3 NYS Smokers' QL to provide information on benefit on the telephone and through the mail to all Medicaid providers and recipients, among others, who contact the QL		Survey of Medicaid providers (possibly a subset of to-be-developed HCP survey) shows increase in number of Medicaid providers who report knowledge of, education of patients on, and prescriptions written for, pharmacotherapy and/or barriers to doing so	Increase in Medicaid beneficiary awareness of Medicaid pharmacotherapy benefits (possible expansion of RPCI NYC and Erie County survey project) Increase in number of Medicaid providers who report knowledge of, education of patients on, and prescriptions written for, pharmacotherapy and/or barriers to doing so (may be possible to take subset of to-be-developed HCP survey)		2001 = 39,029 2002 = 50,000 (proj)	Survey of Medicaid beneficiaries
				No baseline on Medicaid providers available. May be possible to take subset of to-be-developed HCP survey	Survey of Medicaid providers available. May be possible to take subset of to-be-developed HCP survey	

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3B: Increase the number of Medicaid recipients who access pharmacotherapy for smoking cessation through the Medicaid program. (continued)						
- 3B1.4 TCP to develop CS&LA insert on Medicaid coverage of cessation medications for pharmacists to place in filled Medicaid prescriptions; Community Partners to distribute to local pharmacies	Community Partners (cessation centers) report number of inserts distributed to pharmacists, and on reactions/reports by pharmacists, including any problems with distribution	<i>Cessation centers report on activity levels of pharmacists and community organizations in their distribution of materials on Medicaid pharmacotherapy benefits</i> <i>QL reports shows increase in # of callers to whom information on Medicaid benefit was provided who also report that Medicaid is their insurer</i>	<i>Annual Office of Medicaid reports on program usage shows increases (2005—2007)</i> <i>QL reports shows increase in # of callers to whom information on Medicaid benefit was provided who also report that Medicaid is their insurer</i>			
- 3B1.5 TCP and Community Partners to work with WIC, Child and Family Services, OASAS, OMH, ACOG; federally-funded Health Centers; NYS Pregnancy Care assistance program; MOMS programs; Public Assistance application sites; Perinatal Networks, Family Planning Programs ... that serve low-income clients and other income-eligible programs to increase awareness of Medicaid benefit	Community Partners report # of agreements forged with community-based organizations, and distribution of materials by those organizations	<i>QL reports shows increase in # of callers to whom info on Medicaid benefit was provided who also report that Medicaid is their insurer</i>	<i>Annual Office of Medicaid reports on program usage shows increases (2005—2007)</i> <i>QL reports shows increase in # of callers to whom info on Medicaid benefit was provided who also report that Medicaid is their insurer</i>		Cessation centers' program records Media data QL Reports ATS	

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3B: Increase the number of Medicaid recipients who access pharmacotherapy for smoking cessation through the Medicaid program. (continued)						
- 3B1.6 TCP to monitor progress toward achievement of this objective in the population as a whole and in specific subpopulations that are disproportionately affected by this issue						
Objective 3C: Increase the number of health plans that provide coverage of evidence-based treatment for nicotine dependence.						
3C1: TCP to convene a task force or work group to compile/develop supportive materials and work with businesses and health plans to extend coverage	Supportive materials compiled/developed	Baseline number of health plans providing coverage reported	Tracking number of health plans providing coverage shows increase in desired range	Tracking number of health plans providing coverage shows increase in desired range	None yet established	Annual tracking reports by TCP
- 3C1.1 TCP to gather research to document the benefit of providing this coverage (benefit to patients, employers, and health plans)	Task force convened by (date) TCP report documenting benefits of providing coverage for nicotine dependence produced and distributed by (date)	Tracking number of health plans providing coverage shows increase in desired range	Increase in number of employers choosing plans providing coverage of cessation benefits established			Insurance Commis. Office

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3C: Increase the number of health plans that provide coverage of evidence-based treatment for nicotine dependence. (continued)						
- 3C1.2 TCP to identify allies, partners, and stakeholders to work with health plans and providers in establishing coverage of evidence-based treatment for nicotine dependence	TCP + RTI develop method to survey health plans to determine whether coverage is provided under plan (insurance Commissioner's office? NY Health Plan Association?)	<i>TCP report on implementation of plan documents allies', partners', and stakeholders' persuasive communication with health plan executives, etc.</i> <i>TCP works with cooperative health insurers to market coverage feature to appropriate target audiences</i>	<i>TCP works with increased # of cooperative health insurers to market coverage feature to appropriate target audiences</i>	<i>TCP works with increased # of cooperative health insurers to market coverage feature to appropriate target audiences</i>		NY Health Plan Assoc.
- 3C1.3 TCP to work with NYS Insurance Commissioner to extend coverage of cessation benefits	Employer survey developed to measure employer acceptance of plans providing coverage of cessation benefits	<i>Baseline of number of employers choosing plans providing coverage of cessation benefits established</i>	<i>Increase in number of employers choosing plans providing coverage of cessation benefits (employer survey)</i>	<i>Increase in # of persons saying health insurance covered all or part of the medication (ATS D8) or counseling (ATS D12) involved used to help quit smoking (note: BRFSS has similar question)</i>		Employer survey
Objective 3D: Increase the number of non-Medicaid eligible low-income tobacco users who receive free or reduced-priced pharmacotherapy from the TCP to support a cessation attempt.						
3D1 TCP to develop and release (with cessation centers?) an RFA for cessation service providers, with existing, effective cessation programs, to receive funding to provide free or reduced-priced pharmacotherapy in conjunction with the cessation service provided by the organization	Document providing criteria to identify "effective" cessation service providers produced RFA developed RFA distributed X# of cessation service providers funded under RFA	<i>Funded CesServ providers report quarterly on number of free-or-reduced-price pharmacotherapy provided, and on any problems with program (initial report providing baseline)</i>	<i># of services provided by funded CesServ providers increases by X%</i> <i>Problems identified are solved through program revision</i>	<i># of services provided by funded CesServ providers increases by X%</i>		CesServ provider reports

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3D: Increase the number of non-Medicaid eligible low-income tobacco users who receive free or reduced-priced pharmacotherapy from the TCP to support a cessation attempt. (continued)						
3D2: TCP to work with the NYS QL to provide free or reduced-cost (FoRC) pharmacotherapy to eligible callers	Contract with QL modified to mandate provision of FoRC pharmacotherapy to eligible callers QL revises reports to include # of FoRC pharmacotherapy provided to callers	QL reports include # of FoRC pharmacotherapy provided, and any problems with program (Note: QL does not now collect income data, but presumably questions will be added to determine eligibility)	QL reports include # of FoRC pharmacotherapy provided	QL reports include # of FoRC pharmacotherapy provided	Modified QL reports include FoRC pharmacotherapy	
Objective 3E: Increase access to cessation counseling and services.						
3E1: TCP to enhance funding and promotion of the QL – 3E1.1 TCP to develop and implement media messages for placement in a variety of standard and nonstandard venues to motivate smokers to make a quit attempt and to seek appropriate services and support to make the quit attempt successful	Media messages developed and placed Cessation centers report promotion of QL	QL reports increased demand for cessation counseling and services Increase in CP-coordinated events (e.g., Q&W contests; NRT giveaways) targeted at increasing awareness/use of NRT	ATS shows increase in following: (1) ATS: 10.39: In the past 30 days, have you seen or heard advertisements about places to call to get help in quitting smoking? (2) ATS: 4.22: When you quit smoking (or tried) did you attend a stop-smoking clinic, cessation class support group? (3) ATS: 4.23: Did you get counseling to help you stop smoking?	ATS shows increase in following: ATS: 10.39: (see previous) ATS: 4.22: (see previous) ATS: 4.23 (see previous) ATS: Increase in intentions to quit	ATS Community Partners' Reports QL reports	

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3E: Increase access to cessation counseling and services. (continued)						
3E2: Community Partners to coordinate with and promote use of the QL locally, as a resource for information, educational materials, and cessation counseling and support	TCP develops strategy paper for Community Partners to promote use of QL locally (already done?)	<p>ATS shows increase in following:</p> <p>(1) ATS: 10.39: In the past 30 days, have you seen or heard advertisements about places to call to get help in quitting smoking?</p> <p>Baseline:</p> <p>ATS: 10.30: Where did you hear about the NYS Smokers' QL?</p> <p>QL shows increased # of callers reporting awareness of QL through (specific) media (e.g., "TV")</p>	<p>Cessation centers report promotion of QL. QL reports increased demand for cessation counseling and services</p> <p>ATS shows increase in following:</p> <p>(1) ATS: 10.39 (see previous column)</p> <p>(2) ATS: 4.22: When you quit smoking (or tried), did you attend a stop-smoking clinic, cessation class support group?</p> <p>(3) ATS: 4.23: Did you get counseling to help you stop smoking?</p> <p>Increase in # of responses to ATS: 10.30: "from Community Partner"</p> <p>QL reports increased demand for cessation counseling and services</p>	<p>ATS shows increase in following:</p> <p>(1) ATS: 10.39 (see previous column)</p> <p>(2) ATS: 4.22: When you quit smoking (or tried), did you attend a stop-smoking clinic, cessation class support group?</p> <p>(3) ATS: 4.23: Did you get counseling to help you stop smoking?</p> <p>Increase in # of responses to ATS: 10.30: "from Community Partner"</p>	ATS	Community Partner (cessation center) Reports
3E3: Community Partners to maintain and disseminate updated local cessation service directories	TCP distributes to Community Partners a protocol for maintaining/ disseminating/ updating local cesServ directories (if necessary?)	Community Partners report dissemination of updated local cesServ directories	Community Partners report dissemination of updated local cesServ directories			Quitline reports

Goal 3: Promote Cessation from Tobacco Use.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 3E: Increase access to cessation counseling and services. (continued)						
3E4: TCP to work with the Dept. of Taxation & Finance (DTF) to ensure that the QL telephone number (888-609-6292) is printed on the NYS cigarette excise tax stamp	<i>Report describing results of negotiation with DTF</i>	<i>QL telephone number (888-609-6292) is printed on the NYS cigarette excise tax stamp</i>	<i>QL telephone number (888-609-6292) is printed on the NYS cigarette excise tax stamp</i>			TCP Reports
3E5: TCP to work with statewide coalition to support development and implementation of more effective tobacco product warning labels	<i>TCP report on strategies developed to catalyze development and implementation of more effective labels</i>	<i>Strategies in TCP report implemented by statewide coalition. Change in policy proposed at some appropriate level</i>	<i>Proposed change in policy re: warning labels debated at higher levels</i>	<i>Proposed change in warning labels is passed</i>		TCP Reports

Goal 4: Prevent the Initiation of Tobacco Use among Youth and Young Adults.						
Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 4A: Increase the unit price of cigarettes sold in New York State.						
4A1: TCP produces educational package on benefits of policy change on tobacco use initiation trends (package may be similar to 4B2.1)	Educational package, materials completed, distributed to Community and youth Partners	TCP collaborates with the DTF to develop strategy to eliminate cigarette promotions and discounts and untaxed sales	Key stakeholder and organizational stances change toward support	Reduction in prevalence of current cigarette use by middle- and high-school students (YTS Q12)	Current tax rate = _____ (total)	Activity reports
4A2: TCP distributes educational package or separate materials to network	# of communities where educational package workshop is delivered		Total federal and state cigarette excise taxes are increased to \$2.00 or more	Increase in the prevalence of middle- and high-school students who have never tried a cigarette (NYTS Q7)	YTS ATS	
	# of materials distributed and meetings held with legislators to educate on impacts of increased taxes and elimination of promotions	Legislators report awareness of the impact increased taxes have on tobacco use	New state regulation eliminates promotions and discounts for cigarette purchases New state policies reduce untaxed sales of cigarettes		Local community media monitoring, letters-to-editor, etc., conversations with legislators	
	TCP establishes partnership with DTF		Increase in the % of community members who support an increase in cigarette taxes Testimony to legislature about impacts of DT/TCPF initiatives		Stakeholder interviews	

Goal 4: Prevent the Initiation of Tobacco Use among Youth and Young Adults.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 4B: Increase the number of jurisdictions that levy their own local cigarette excise taxes (LCET). Increase the amount of each LCET.						
4B1: TCP and Community Partners to educate the public, local legislators, and key opinion leaders about the relationship between increased price and decreased tobacco use and about increased public support for high tobacco prices and high excise taxes	Workshop/training presented at ____ communities, and with ____ organizational sponsors	Increase in community awareness of the role of tobacco product price in preventing/reducing tobacco use	# of jurisdictions that levy their own tobacco excise tax increases and/or the amount of the local tobacco excise tax increases	# of jurisdictions that levy their own tobacco excise tax increases and/or the amount of the local tobacco excise tax increases	1 (2002) jurisdiction levy's its own tobacco excise tax	Department of Tax & Finance
- 4B2.1: TCP to work with media contractor to develop workshop/training on education and advocacy strategies related to tobacco product prices and tobacco use, including fact sheet, tool kit, presentation, brochure, letter to editor, etc. that can be customized to local context	Workshop developed and delivered including instruction on strategies to increase public support for LCET	Community Partners report strategies implemented to increase public support for LCET, including # of letters to editor, presentations, meetings with local legislators or key opinion leaders	Increase in % of community with favorable attitude toward LCET increase policy change	Reduction in prevalence of current cigarette use by middle- and high-school students	Community Partner Reports YTS	
- 4B2.2: TCP to work with media contractor to identify ways to increase public support for LCET through media and public relations activities	Methods identified in conjunction with experiences of Community Partners	Increased number of LCET ordinances proposed and debated in local jurisdictions (media reports or Community Partners' reports)	Reported quit attempts because of cost of cigarettes increases (ATS—D23a)	Increase in the prevalence of middle- and high-school students who have never tried a cigarette Increase in the % of community members who support an increase in LCET	Media reports ATS YTS	

Goal 4: Prevent the Initiation of Tobacco Use among Youth and Young Adults.

Program Activities	Outputs	Outcomes			Baseline Measure	Data Source
		Short-term (0-1 years)	Intermediate (1-3 years)	Long-term (4+ years)		
Objective 4B: Increase the number of jurisdictions that levy their own local cigarette excise taxes (LCET). Increase the amount of each LCET. (continued)						
- 4B2.3 TCP to work with media contractor to coordinate paid and earned media and PR activities around increasing public support for local cigarette excise taxes	Paid and earned media developed on LCET-focused issues Media on LCET issues runs in X# of media channels	Community Partners report types of opposition to LCET campaigns and strategies taken to defuse Measure of exposure to media on LCET issues	Measure of receptivity of LCET issues from media campaign		Community Partner Reports ATS Media reports	

APPENDIX B:

BRFSS QUESTIONNAIRE CONTENT, 1995–2003

Table B-1. BRFSS Questionnaire Content, 1995–2003

Survey Question		1995	1996	1997	1998	1999	2000	2001	2002	2003
Category: Tobacco Use										
Have you smoked at least 100 cigarettes in your entire life?	●	●	●	●	●	●	●	●	●	●
Do you now smoke cigarettes every day, some days, or not at all?	●	●	●	●	●	●	●	●	●	●
Do you smoke cigarettes now?	●	●	●	●	●	●	●	●	●	●
On the average, about how many cigarettes a day do you now smoke?	●	●	●	●	●	●	●	●	●	●
On how many of the past 30 days did you smoke cigarettes?	●	●	●	●	●	●	●	●	●	●
On the average, when you smoked during the past 30 days, about how many cigarettes did you smoke a day?	●	●	●	●	●	●	●	●	●	●
Are the words "light" or "ultra-light" on the package of the brand you usually smoke or had smoked?							● ^a			
Do you believe that smoking low tar and low nicotine cigarettes carries less risk of illness than smoking regular cigarettes?						● ^a				
Category: Smoking Cessation										
During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?	●	●	●	●	●	●	●	●	●	●
During the past 12 months, have you quit smoking for one day or longer?	●	●	●	●	●	●	●	●	●	●
About how long has it been since you last smoked cigarettes regularly, that is, daily?	●	●	●	●	●	●	●	●	●	●
Within the past month, Past year, 15+ years?	Past 3 months, Past 5 years,	Past 6 months, Past 15 years,								
Earlier you said that you stopped smoking cigarettes regularly within the past 5 years. Was this within the past 3 years?							● ^a			
Have you ever used stop-smoking products such as nicotine gum, patches, or inhalers, or pills such as Zyban or Wellbutrin?						● ^a				

(continued)

Table B-1. BRFSS Questionnaire Content, 1995–2003 (continued)

Survey Question		1995	1996	1997	1998	1999	2000	2001	2002	2003
Category: Marketing										
In the past 12 months, have you heard, read, or seen any information about quitting smoking? Yes, No, Don't Know, Refused						● ^a				
Did you get any of this information from: television, radio, billboard, doctor, dentist, other health care professional, work family/friend, newspaper/magazine, brochure/other printed material, Smokers' Quitline, Internet?						● ^a				
Do you think advertising of tobacco products should be:		● ^a								
Always allowed,										
Allowed under some conditions,										
Not allowed at all?										
Category: Environmental Tobacco Smoke										
Is there anyone else living in your household who smokes cigarettes?						● ^a				
Which statement best describes the rules about smoking in your home?		● ^a				● ^a				
a. No one is allowed to smoke anywhere										
b. Smoking is allowed in some places or at some times										
c. Smoking is permitted anywhere										
In the past 30 days has anyone, including yourself, smoked cigarettes, cigars, or pipes anywhere inside your home?						● ^b				
If restaurants were completely smoke free, would you eat out							● ^a			
More often, Less often, About the same as you do now?										
Now I'm going to read you a list of places where smoking may or may not be allowed. For each one please tell me if you think that smoking Should be allowed there without restriction, Should be permitted only in designated areas, Should not be allowed at all.						● ^a				
Restaurants, Bars and Cocktail Lounges, Indoor Shopping Malls, Indoor Work Areas, Indoor Sporting Events, Outdoor Sporting Events										

(continued)

Table B-1. BRFSS Questionnaire Content, 1995–2003 (continued)

Survey Question		1995	1996	1997	1998	1999	2000	2001	2002	2003
Category: Environmental Tobacco Smoke (continued)										
In the following locations, do you think that smoking should be allowed in all areas, some areas, or not allowed at all?										
Restaurants	● ^b									
Schools										
Day Care Centers										
Indoor Work Areas										
Concerning smoking in _____ do you think that smoking should be	● ^a									
Allowed without restriction,										
Permitted only in separately ventilated rooms,										
Permitted only in designated areas but with no separate ventilation,										
Not allowed at all?										
Restaurants, Government buildings, Private worksites, Bars and cocktail lounges, Bowling alleys, Indoor sporting events										
Which of the following best describes your place of work's official smoking policy for indoor public or common areas, such as lobbies, rest rooms, and lunchrooms?	● ^b									
Not allowed in any public area,										
Allowed in some public areas,										
Allowed in all public areas,										
No official policy										
Which of the following best describes your place of work's official smoking policy for work areas?	● ^b									
Not allowed in any work areas,										
Allowed in some work areas,										
Allowed in all work areas,										
No official policy										

(continued)

Table B-1. BRFSS Questionnaire Content, 1995–2003 (continued)

Survey Question	1995	1996	1997	1998	1999	2000	2001	2002	2003
Category: Environmental Tobacco Smoke (continued)									
Which of these best describes your place of work's policy regarding smoking?	● ^a								
Smoking is not allowed at all									
Smoking is restricted to separately ventilated rooms									
Smoking is restricted to separate work areas, without regard to ventilation									
While working at your job, are you indoors most of the time?		● ^b							
Are you employed in a job which causes you to spend most of your time in an enclosed indoor area such as an office, factory, warehouse, shop or restaurant?	● ^a								
Category: Insurance									
Did you pay for this completely on your own, or did an insurance plan or other medical assistance cover at least part of the cost?			● ^a						
Category: Smokeless Tobacco Use									
Have you ever used or tried any smokeless tobacco products such as chewing tobacco or snuff?		● ^b							
Do you currently use any smokeless tobacco products such as chewing tobacco or snuff?		● ^b							
Category: Cigar Use									
Have you ever smoked a cigar, even just a few puffs?	●								
When was the last time you smoked a cigar?		●							
Past month, Past 3 months, Past year,									
Past 5 years, Past 15 years, 15+ years									
In the past month, did you smoke cigars:									
Everyday, Several times per week,									
Once per week, Less than once per week.									

(continued)

Table B-1. BRFSS Questionnaire Content, 1995–2003 (continued)

Survey Question		1995	1996	1997	1998	1999	2000	2001	2002	2003
Category:	Tobacco Regulation									
In New York, it is against the law to sell cigarettes to anyone under 18 years old.						● ^a				
How many storekeepers do you think are careful about not selling to people under 18?										
All, Most, Some, None										
Total		7	16	6	9	16	18	3		

^aState Added Module^bOptional Core